

# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 148092**

**TO: Marcela Cordero Garcia**  
**Location: REM/3C25/3C18**  
**Art Unit: 1654**  
**Monday, March 28, 2005**

**Case Serial Number: 10/681827**

**From: Mary Jane Ruhl**  
**Location: Biotech-Chem Library**  
**Remsen 1-A-62**  
**Phone: 571-272-2524**

**maryjane.ruhl@uspto.gov**

### **Search Notes**

Examiner Cordero Garcia,

Here are the results for your recent search request.

Please feel free to contact me if you have any questions about these results.

Thank you for using STIC services. We appreciate the opportunity to serve you.

Sincerely,

Mary Jane Ruhl  
Technical Information Specialist  
STIC  
Remsen 1-A-62  
Ext. 22524





# STIC SEARCH RESULTS FEEDBACK FORM

## Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher or contact*:

Mary Hale, Information Branch Supervisor  
Remsen Bldg. 01 D86  
571-272-2507

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1610

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC-Biotech-Chem Library, Remsen Bldg.



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ACCESS DB # 148092  
PLEASE PRINT CLEARLY

240

Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: MARCELA M. LORDERO GARCIA Examiner #: 80381 Date: 3/2/05  
Art Unit: 1654 Phone Number: 2-2939 Serial Number: 10/681827  
Location (Bldg/Room#): RFM308 (Mailbox #): 3C18 Results Format Preferred (circle): PAPER DISK  
\*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: DIPEPTIDE PHENYL ETHERS  
Inventors (please provide full names): SEE BIB ATTACHED

Earliest Priority Date: 10/7/03

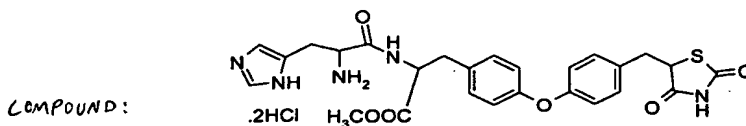
Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

PLEASE SEARCH THE FOLLOWING CMPD IN NPL & MARPAT.

NAME: 5-[4-(4-(2-(2-amino-3-imidazol-4-ylpropanamido)-2-methoxy carbonylethyl)phenoxy)benzyl]thiazolidin-2,4-dione dihydrochloride. (Compound A)



THANKS,

STAFF USE ONLY

Searcher: \_\_\_\_\_  
Searcher Phone #: \_\_\_\_\_  
Searcher Location: \_\_\_\_\_  
Date Searcher Picked Up: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Searcher Prep & Review Time: \_\_\_\_\_  
Online Time: \_\_\_\_\_

Type of Search

\_\_\_\_ NA Sequence (#)  
\_\_\_\_ AA Sequence (#)  
\_\_\_\_ Structure (#)  
\_\_\_\_ Bibliographic  
\_\_\_\_ Litigation  
\_\_\_\_ Fulltext  
\_\_\_\_ Other

Vendors and cost where applicable

\_\_\_\_ STN      \_\_\_\_ Dialog  
\_\_\_\_ Questel/Orbit      \_\_\_\_ Lexis/Nexis  
\_\_\_\_ Westlaw      \_\_\_\_ WWW/Internet  
\_\_\_\_ In-house sequence systems  
\_\_\_\_ Commercial      \_\_\_\_ Oligomer      \_\_\_\_ Score/Length  
\_\_\_\_ Interference      \_\_\_\_ SPDI      \_\_\_\_ Encode/Transl  
\_\_\_\_ Other (specify)

=> d his ful

FILE 'HCAPLUS' ENTERED AT 14:33:01 ON 28 MAR 2005

E NAG BISHWAJIT/AU  
L1 72 SEA ABB=ON ("NAG BISHWAGIT"/AU OR "NAG BISHWAJIT"/AU)  
E NAG ABHIJEET/AU  
L2 2 SEA ABB=ON "NAG ABHIJEET"/AU  
E DEY DEBENDRANATH/AU  
L3 21 SEA ABB=ON ("DEY DEBEDRANATH"/AU OR "DEY DEBENDRANATH"/AU)  
E NEOGI PARTHA/AU  
L4 27 SEA ABB=ON "NEOGI PARTHA"/AU  
L5 0 SEA ABB=ON L1 AND L2 AND L3 AND L4  
L6 93 SEA ABB=ON L1 OR L2 OR L3 OR L4  
L7 0 SEA ABB=ON L6 AND ?DIPEPTIDE? (W) PHENYL?  
L8 1 SEA ABB=ON L6 AND PHENYL(W)?ETHER?

FILE 'REGISTRY' ENTERED AT 14:36:16 ON 28 MAR 2005

L9 168 SEA ABB=ON (188576-13-8/BI OR 2295-31-0/BI OR 2346-26-1/BI --etc.

FILE 'HCAPLUS' ENTERED AT 14:36:43 ON 28 MAR 2005

L10 1 SEA ABB=ON L8 AND L9

FILE 'REGISTRY' ENTERED AT 14:48:24 ON 28 MAR 2005

L11 STRUCTURE  
L12 0 SEA SSS SAM L11  
L13 0 SEA SSS FUL L11  
L14 STR L11  
L15 0 SEA SSS SAM L14  
L16 STR L14  
L17 0 SEA SSS SAM L16  
L18 0 SEA SSS FUL L16  
L19 STR L16  
L20 0 SEA SSS SAM L19  
L21 STR L19  
L22 0 SEA SSS SAM L21  
L23 STR L21  
L24 0 SEA SSS SAM L23  
L25 10 SEA SSS FUL L23

*full structure yielded 0 results*

FILE 'HCAPLUS' ENTERED AT 15:01:55 ON 28 MAR 2005

L26 3 SEA ABB=ON L25

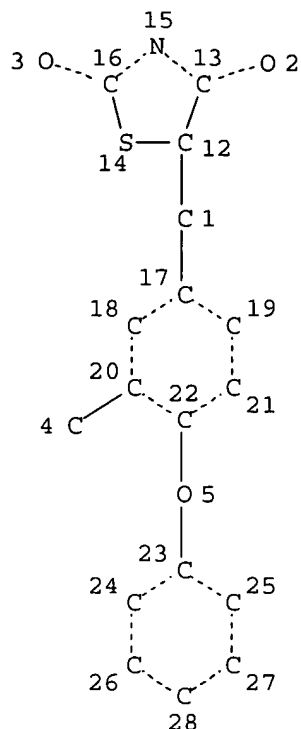
*10 compounds in Reg. for truncated structure - see 4 que stat*  
*3 cites from CAPLUS*

FILE 'MARPAT' ENTERED AT 15:02:14 ON 28 MAR 2005

L27 0 SEA SSS SAM L23  
L28 10 SEA SSS FUL L23  
L29 STR L11  
L30 0 SEA SSS SAM L29  
L31 0 SEA SSS FUL L29  
L32 0 SEA SSS SAM L14  
L33 0 SEA SSS FUL L14

*10 cites from Marpat*  
*no success in Marpat using full structure.*

=> d que stat 126  
L23 STR

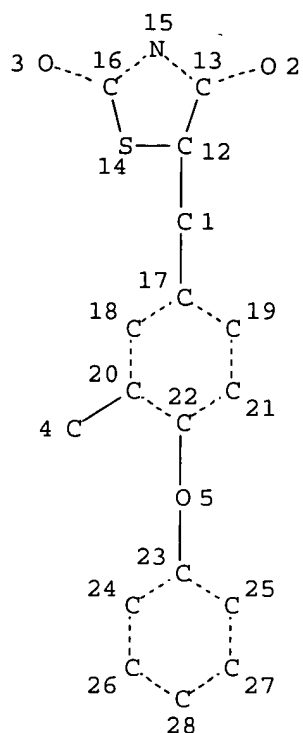


NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE  
L25 10 SEA FILE=REGISTRY SSS FUL L23  
L26 3 SEA FILE=HCAPLUS ABB=ON L25

=> d que stat 128  
L23 STR



GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 22

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100.0% PROCESSED      734 ITERATIONS
SEARCH TIME: 00.00.01
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10 ANSWERS

=&gt; d ibib abs hitstr 126 1-3

L26 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:589256 HCAPLUS

DOCUMENT NUMBER: 141:140764

TITLE: Preparation of amino acid phenoxy ethers as inhibitors of cytokines

INVENTOR(S): Nag, Bishwajit; Nag, Abhijeet; Dey, Debendranath; Agarwal, Shiv Kumar

PATENT ASSIGNEE(S): Bexel Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 47 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

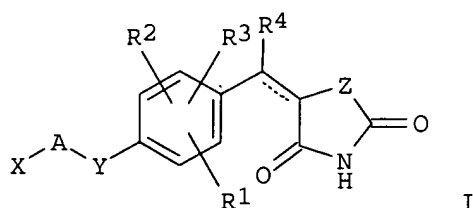
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004142991	A1	20040722	US 2003-356113	20030131
US 6794401	B2	20040921		
WO 2004066964	A2	20040812	WO 2004-US790	20040113
WO 2004066964	C2	20040902		
WO 2004066964	A3	20050224		

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

PRIORITY APPLN. INFO.:	US 2003-440772P	P	20030117
	US 2003-356113	A	20030131

OTHER SOURCE(S): MARPAT 141:140764  
GI

AB Novel amino acid Ph ethers, e.g. tyrosine Ph ethers, or tautomeric forms, stereoisomers, polymorphs, pharmaceutically acceptable salts, or pharmaceutically acceptable solvates thereof [I; wherein the dotted line represents an optional double bond; Y = O, S, NR (wherein R represents hydrogen or alkyl); Z = O, S; R1-R4 = H, halogen, HO, nitro, cyano, formyl, amino, alkyl, alkoxy; A = a bond or substituted or unsubstituted aryl, heterocyclyl or heteroaryl ring; X = an alpha aminocarboxylic acid or alpha aminocarboxylic acid derivative bonded to A or Y through its alpha side chain] are prepared Also provided are a method for reducing glucose, free fatty acids, cholesterol, or triglyceride levels in plasma,. These compds. inhibit cytokines such as TNF $\alpha$ , IL-6, and IL-1 $\beta$  and exhibit activity for the treatment of immunol. diseases mediated by

cytokines, autoimmune diseases such as multiple sclerosis and rheumatoid arthritis, inflammation mediated by cyclooxygenase, obesity, hyperlipidemia, hypertension, neurol. diseases and diabetes, or a disorder associated with insulin resistance. Unlike other thiazolidine-compds. (TZD mols.), the compds. I exhibit no adipocyte differentiation, reduce body weight gain, and appear to have no affinity for PPAR-g and thereby are different from known TZD mols., which typically have adipocyte differentiation activity, increase weight gain, and are PPAR-g agonists. Thus, Me 2-[(tert-butoxycarbonyl)amino]-3-(4-hydroxyphenyl)propanoate was treated with NaH in DMF and etherified with 4-Fluorobenzaldehyde at 80° to give Me 2-[(tert-butoxycarbonyl)amino]-3-[-(4-formylphenoxy)phenyl]propanoate which was condensed with 2,4-thiazolidinedione in the presence of benzoic acid and piperidine at 145-155° under reflux with continuous removal of water using Dean-Stark apparatus for 5 h followed by treatment with HCl in CH<sub>2</sub>Cl<sub>2</sub> to give 5-[4-[4-(2-amino-2-methoxycarbonylethyl)phenoxy]benzylidene]thiazolidine-2,4-dione hydrochloride (II). Catalytic hydrogenation of II over Pd/C in methanol gave 5-[4-[4-(2-amino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione (III). III lowered pro-inflammatory cytokines in human macrophage cells and in an animal model of inflammation inhibited carrageenan-induced paw edema in SD rats.

IT **724760-60-5P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzyl]thiazolidine-2,4-dione **724760-61-6P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzyl]thiazolidine-2,4-dione **724761-04-0P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzyl]thiazolidine-2,4-dione **724761-05-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzyl]thiazolidine-2,4-dione

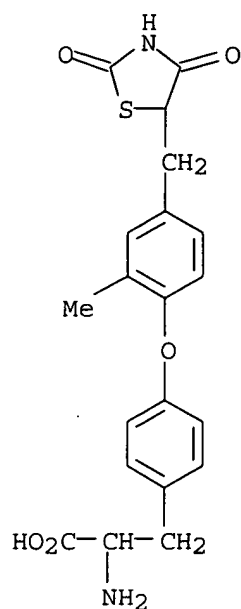
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

RN 724760-60-5 HCAPLUS

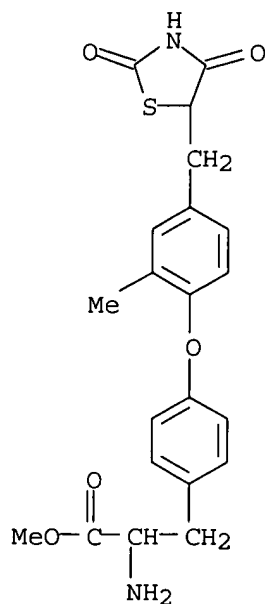
CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-methylphenyl]- (9CI)  
(CA INDEX NAME)





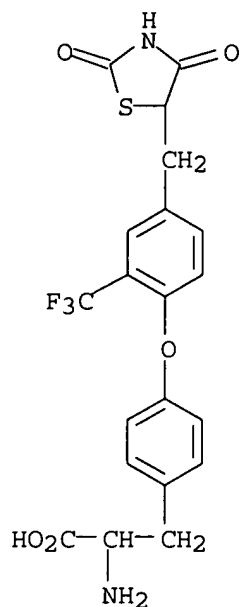
RN 724760-61-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-methylphenyl]-, methyl ester (9CI) (CA INDEX NAME)



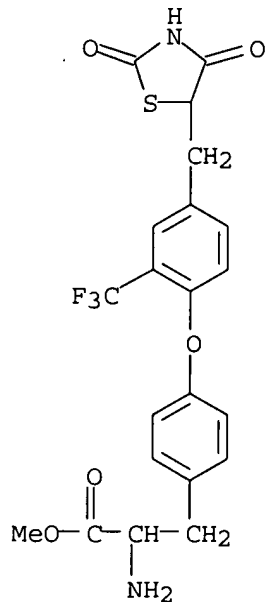
RN 724761-04-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 724761-05-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

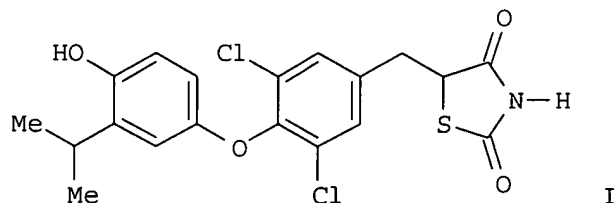
ACCESSION NUMBER: 2001:780441 HCAPLUS

DOCUMENT NUMBER: 135:318502

TITLE: Preparation of [(hydroxyphenoxy)benzyl]thiazolidinedio

nes and analogs as thyroid receptor ligands  
 INVENTOR(S): Chiang, Yuan-Ching P.  
 PATENT ASSIGNEE(S): Pfizer Products Inc., USA  
 SOURCE: Eur. Pat. Appl., 51 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1148054	A1	20011024	EP 2001-303490	20010417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2001051645	A1	20011213	US 2001-836765	20010417
US 6620830	B2	20030916		
CA 2344574	AA	20011021	CA 2001-2344574	20010419
BR 2001001527	A	20011120	BR 2001-1527	20010419
JP 2002053564	A2	20020219	JP 2001-121188	20010419
US 2004110951	A1	20040610	US 2003-617436	20030711
PRIORITY APPLN. INFO.:			US 2000-199044P	P 20000421
			US 2001-836765	A3 20010417
OTHER SOURCE(S):		MARPAT 135:318502		
GI				

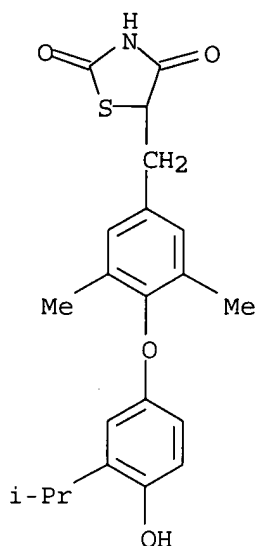


AB R1Z1Z2ZR [R = 3,4-dioxothiazolidin-5-ylmethyl, 3,5-dioxo[1,2,4]oxadiazolidin-2-ylmethyl, etc.; R1 = OH, alkoxy, acyloxy, etc.; Z,Z1 = e.g., (un)substituted 1,4-phenylene; Z2 = O, SOO-2, CH2, CO, (alkyl)imino, etc.] were prepared as thyroid receptor ligands (no data). Thus, [3,4-(Me2HC)(MeO)C6H3]2IBF4 was etherified by 3,5,4-Cl2(HO)C6H3CO2Et and the reduced product condensed with 2,4-thiazolidinedione to give, in 3 addnl. steps, title compound I.

IT **322472-23-1P**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of [(hydroxyphenoxy)benzyl]thiazolidinediones and analogs as thyroid receptor ligands)

RN 322472-23-1 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[4-hydroxy-3-(1-methylethyl)phenoxy]-3,5-dimethylphenyl]methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:89629 HCAPLUS

DOCUMENT NUMBER: 134:131526

TITLE: Preparation of thiazolidine-2,4-diones and their use as thyroid hormone agonists for prevention and treatment of obesity, hypercholesterolemia, and atherosclerosis

INVENTOR(S): Kagechika, Hiroyuki; Fukazawa, Hiroshi

PATENT ASSIGNEE(S): Iyaku Bunshi Sekkei Kenkyusho K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

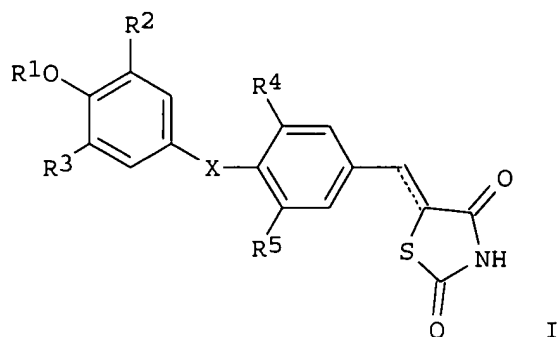
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001031660	A2	20010206	JP 1999-200556	19990714
PRIORITY APPLN. INFO.:			JP 1999-200556	19990714
OTHER SOURCE(S):	MARPAT	134:131526		
GI				



AB Title compds. I [R1 = H, C1-6 alkyl; R2-R5 = H, halo, C1-6 alkyl; X = O, S, NR6, CR7R8; CH(OR9), CO; R6-R9 = H, C1-6 alkyl; the broken line may be a bond] or their salts are prepared Condensation of thiazolidinedione with 3,5-diiodo-4-(p-methoxyphenoxy)benzaldehyde gave 66% I (R1 = Me, R2 = R3 = H, R4 = R5 = iodine, X = O, the broken line is bond), which was demethylated and iodinated to afford I (R1 = R2 = H, R3-R5 = iodine, X = O, the broken line is bond). The product activated human thyroid hormone receptor  $\alpha$  in a dose-dependent manner.

IT 322472-23-1P 322472-59-3P 322472-64-0P

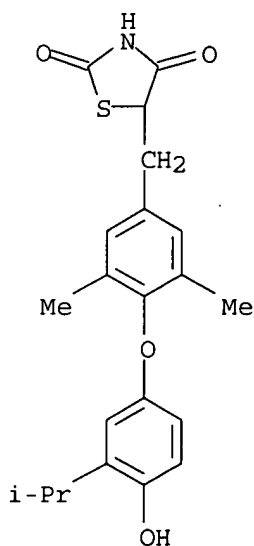
322472-65-1P 322472-66-2P 322472-67-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of thiazolidine-2,4-diones as thyroid hormone agonists)

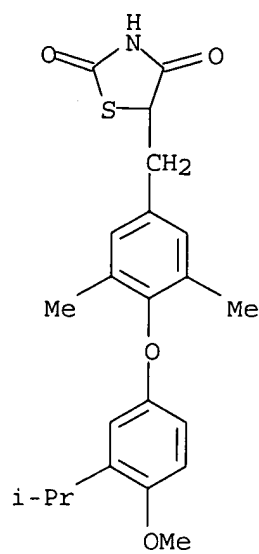
RN 322472-23-1 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[4-hydroxy-3-(1-methylethyl)phenoxy]-3,5-dimethylphenyl)methyl]- (9CI) (CA INDEX NAME)



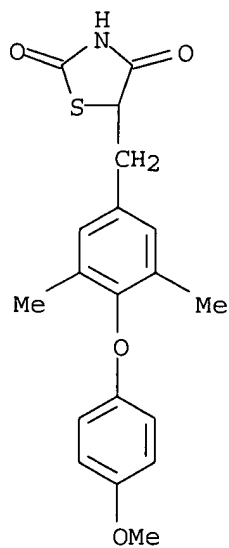
RN 322472-59-3 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[4-methoxy-3-(1-methylethyl)phenoxy]-3,5-dimethylphenyl)methyl]- (9CI) (CA INDEX NAME)



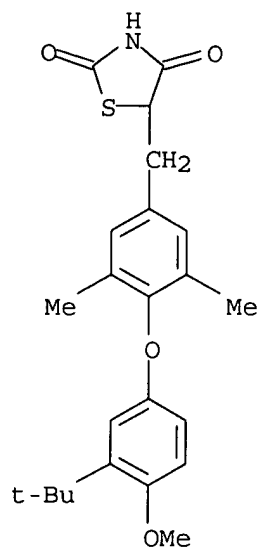
RN 322472-64-0 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-(4-methoxyphenoxy)-3,5-dimethylphenyl]methyl]-  
(9CI) (CA INDEX NAME)



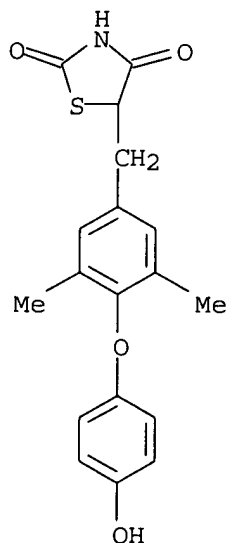
RN 322472-65-1 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[3-(1,1-dimethylethyl)-4-methoxyphenoxy]-3,5-dimethylphenyl]methyl]- (9CI) (CA INDEX NAME)



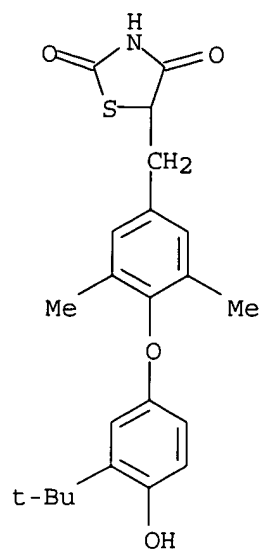
RN 322472-66-2 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-(4-hydroxyphenoxy)-3,5-dimethylphenyl]methyl]-  
(9CI) (CA INDEX NAME)



RN 322472-67-3 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[3-(1,1-dimethylethyl)-4-hydroxyphenoxy]-3,5-dimethylphenyl]methyl]- (9CI) (CA INDEX NAME)





All of the formats (except for SAM, SCAN, FHIT, HIT, FQHIT, or QHIT) may be used with the DISPLAY ASC command to display the record for a specified Accession Number.

ENTER DISPLAY FORMAT (BIB):all

L28 ANSWER 1 OF 10 MARPAT COPYRIGHT 2005 ACS on STN

AN 141:395288 MARPAT

TI New [3,5-dihalo-4-(4-hydroxyphenoxy)phenyl]acetic acid derivatives useful as thyroid receptor ligands, and their preparation, pharmaceutical compositions, and methods of use

IN Ryono, Dennis E.; Hangeland, Jon J.; Friends, Todd J.; Dejneka, Tamara; Devasthale, Pratik; Caringal, Yolanda V.; Zhang, Minsheng; Doweiko, Arthur M. P.; Malm, Johan; Sanin, Andrei

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DT Patent

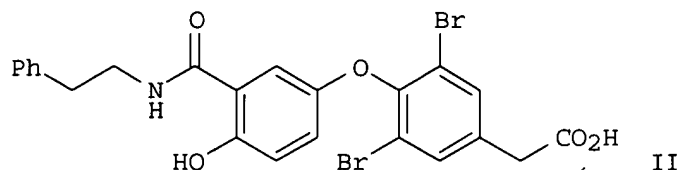
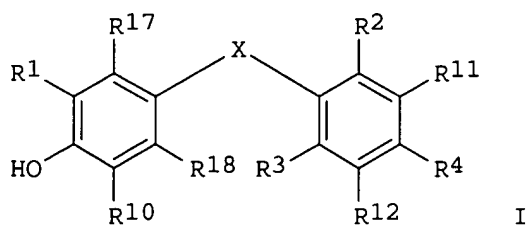
LA English

IC ICM A61K

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
Section cross-reference(s): 1, 2, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004093799	A2	20041104	WO 2004-US11883	20040416
	WO 2004093799	A3	20050224		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2005004184	A1	20050106	US 2004-826100	20040415
PRAI	US 2003-463774P		20030418		
GI					



AB Thyroid receptor ligands are provided which have the general formula I [wherein: R1 = (un)substituted CONR5R6, CH2NR5R6, NR5COR6, OR7, R8, 4-R9-4,5-dihydrooxazol-2-yl; R2, R3 = H, halo, C1-4 alkyl or C3-5 cycloalkyl, provided that at least 1 of R2 and R3 ≠ H; R4 = (CH2)nR13 or (CH2)nCONR16CR13R14R15; R5, R6 = H, (hetero)aryl, (cyclo)alkyl, or (hetero)aralkyl; R7 = (hetero)aryl, alkyl, or (hetero)aralkyl; R8 = (hetero)aryl or cycloalkyl; R9 = R7 or H; R10 = H, halo, cyano, or alkyl; R11, R12 = H, halo, alkoxy, OH, cyano, or alkyl; R13 = COOH and esters, phosphonic and phosphinic acid and esters, sulfonic acid, tetrazole, hydroxamic acid, thiazolidinedione, acylsulfonamide, or other carboxylic acid surrogates; R14, R15 = H, alkyl; or R14R15 = (CH2)2-5, forming 3- to 6-membered cycloalkyl rings; R16 = H or C1-4 alkyl; R17 and R18 = H, halo, or alkyl; n = 0-4; X = O, S, S(O)2, S(O), Se, CO, NH, or CH2]. In addition, a method is provided for preventing, inhibiting or treating diseases or disorders associated with metabolism dysfunction, or which are dependent upon the expression of, a T3 regulated gene, wherein a compound I is administered therapeutically. Claims cover the above, as well as pharmaceutical compns. containing I, and methods of coadministration of I with other compds., particularly certain antidiabetic agents. Compds. I include selective agonists, partial agonists, antagonists, and partial antagonists of thyroid receptors (no data). Approx. 168 compds. were prepared For instance, Me (3,5-dibromo-4-hydroxyphenyl)acetate underwent O-arylation with (4-MeOC6H4)2I+ BF4-, and the resultant 4-methoxyphenyl ether derivative underwent a sequence of: (1) formylation in the 3-position, (2) O-demethylation, (3) oxidation of the aldehyde to an acid, (4) amidation of the acid, and (5) alkaline saponification of the ester, to give title compound

II.

ST halohydroxyphenoxyphenylacetate prepn thyroid receptor ligand prepn treatment metab disorder; antidiabetic combination therapy thyroid receptor ligand bromo chloro prepn

IT Genetic element

RL: BSU (Biological study, unclassified); BIOL (Biological study) (TRE (thyroid hormone-responsive element), T3-regulated, treatment of associated diseases; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic

acid

derivs. as thyroid receptor ligands)

IT Antiarteriosclerotics

- (antiatherosclerotics; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Heart, disease  
(arrhythmia, treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Mental disorder  
(cognitive, treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Bone, disease  
(demineralization, treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Mental disorder  
(depression, treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Appetite  
Cognition  
Metabolism, animal  
(disorder, treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Heart, disease  
(failure, treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Thyroid hormones  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(inhibitors; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Goiter  
(non-toxic, treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Antidiabetic agents  
(pharmaceutical compns. also containing; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Antiarrhythmics  
Anticholesteremic agents  
Antidepressants  
Antiglaucoma agents  
Antiobesity agents  
Cognition enhancers  
Combination chemotherapy  
(preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Thyroid hormone receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Thyroid hormones  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Hyperthyroidism  
(subclin., treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)
- IT Antitumor agents  
(thyroid; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs.

as thyroid receptor ligands)

IT Atherosclerosis  
 Glaucoma (disease)  
 Hypercholesterolemia  
 Hypothyroidism  
 Obesity  
 Osteoporosis  
 Skin, disease  
 Thyroid gland, neoplasm  
 (treatment; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs.  
 as thyroid receptor ligands)

IT Thyroid hormone receptors  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 ( $\beta$ , agonists; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid  
 derivs. as thyroid receptor ligands)

IT 725239-20-3P 725239-22-5P 725239-24-7P 725239-26-9P 725239-28-1P  
 725239-30-5P 725239-32-7P 725239-34-9P 725239-35-0P 725239-37-2P  
 725239-39-4P 725239-41-8P 725239-43-0P 725239-45-2P 725239-47-4P  
 725239-49-6P 725239-51-0P 725239-53-2P 725239-54-3P 725239-55-4P  
 725239-56-5P 725239-57-6P 725239-58-7P 725239-59-8P 725239-60-1P  
 725239-61-2P 725239-62-3P 725239-63-4P 725239-64-5P 725239-65-6P  
 725239-66-7P 725239-67-8P 725239-69-0P 725239-70-3P 725239-71-4P  
 725239-72-5P 725239-73-6P 788822-75-3P 788822-76-4P 788822-77-5P  
 788822-78-6P 788822-79-7P 788822-80-0P 788822-81-1P 788822-82-2P  
 788822-83-3P 788822-84-4P 788822-85-5P 788822-86-6P 788822-87-7P  
 788822-88-8P 788822-89-9P 788822-90-2P 788822-91-3P 788822-92-4P  
 788822-93-5P 788822-94-6P 788822-95-7P 788822-96-8P 788822-97-9P  
 788822-98-0P 788822-99-1P 788823-00-7P 788823-01-8P 788823-02-9P  
 788823-03-0P 788823-04-1P 788823-05-2P 788823-06-3P 788823-07-4P  
 788823-08-5P 788823-09-6P 788823-10-9P 788823-11-0P 788823-12-1P  
 788823-13-2P 788823-14-3P 788823-15-4P 788823-16-5P 788823-17-6P  
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 788823-33-6P 788823-34-7P 788823-35-8P 788823-36-9P 788823-37-0P  
 788823-38-1P 788823-39-2P 788823-40-5P 788823-41-6P 788823-42-7P  
 788823-43-8P 788823-44-9P 788823-45-0P 788823-46-1P 788823-47-2P  
 788823-48-3P 788823-49-4P 788823-50-7P 788823-51-8P 788823-52-9P  
 788823-53-0P 788823-54-1P 788823-55-2P 788823-56-3P 788823-57-4P  
 788823-58-5P 788823-59-6P 788823-60-9P 788823-61-0P 788823-62-1P  
 788823-63-2P 788823-64-3P 788823-65-4P 788823-66-5P 788823-67-6P  
 788823-68-7P 788823-69-8P 788823-70-1P 788823-71-2P 788823-72-3P  
 788823-73-4P 788823-74-5P 788823-75-6P 788823-76-7P 788823-77-8P  
 788823-78-9P 788823-79-0P 788823-80-3P 788823-81-4P 788823-82-5P  
 788823-83-6P 788823-84-7P 788823-85-8P 788823-86-9P 788823-87-0P  
 788823-88-1P 788823-89-2P 788823-90-5P 788823-91-6P 788823-92-7P  
 788823-93-8P 788823-94-9P 788823-95-0P 788823-96-1P 788823-97-2P  
 788823-98-3P 788823-99-4P 788824-00-0P 788824-01-1P 788824-02-2P  
 788824-03-3P 788824-04-4P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (drug candidate; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid  
 derivs. as thyroid receptor ligands)

IT 1426-58-0P, Bis(4-methoxyphenyl)iodonium tetrafluoroborate 348167-06-6P,  
 Methyl [3,5-dibromo-4-[(4-methoxyphenyl)oxy]phenyl]acetate 348167-18-0P,  
 Methyl [3,5-dibromo-4-[(3-amino-4-methoxyphenyl)oxy]phenyl]acetate  
 409366-27-4P, Methyl (3,5-dichloro-4-hydroxyphenyl)acetate 500794-80-9P,  
 Methyl 3,5-dibromo-4-[(3-nitro-4-methoxy-5-isopropylphenyl)oxy]benzoate

500794-81-0P, Methyl 3,5-dibromo-4-[(3-amino-4-methoxy-5-isopropylphenyl)oxy]benzoate 500794-82-1P, Methyl 3,5-dibromo-4-[(3-iodo-4-methoxy-5-isopropylphenyl)oxy]benzoate 649725-54-2P, Methyl [3,5-dibromo-4-[(3-formyl-4-hydroxyphenyl)oxy]phenyl]acetate 725239-16-7P, Methyl [3,5-dibromo-4-[(3-formyl-4-methoxyphenyl)oxy]phenyl]acetate 725239-18-9P, Methyl [3,5-dibromo-4-[(3-carboxy-4-hydroxyphenyl)oxy]phenyl]acetate 725239-75-8P, Methyl [3,5-dichloro-4-[(4-methoxyphenyl)oxy]phenyl]acetate 788824-05-5P, Methyl [3,5-dibromo-4-[(3-(phenethylcarbamoyl)-4-hydroxyphenyl)oxy]phenyl]acetate 788824-06-6P, Isobutyl 2,6-dichloro-4-(diazoacetyl)phenyl carbonate 788824-07-7P, Methyl [3,5-dichloro-4-[(isobutoxycarbonyl)oxy]phenyl]acetate 788824-08-8P, Methyl [3,5-dichloro-4-[(3-formyl-4-methoxyphenyl)oxy]phenyl]acetate 788824-09-9P, Methyl [3,5-dichloro-4-[(3-carboxy-4-hydroxyphenyl)oxy]phenyl]acetate 788824-10-2P, Methyl [3,5-dichloro-4-[(3-(phenethylcarbamoyl)-4-hydroxyphenyl)oxy]phenyl]acetate 788824-11-3P, Methyl [3,5-dibromo-4-[(3-[(phenethylamino)methyl]-4-hydroxyphenyl)oxy]phenyl]acetate 788824-12-4P, Methyl [3,5-dibromo-4-[(3-carboxy-4-methoxyphenyl)oxy]phenyl]acetate 788824-13-5P, Methyl [3,5-dibromo-4-[(3-[(tert-butoxycarbonyl)amino]-4-methoxyphenyl)oxy]phenyl]acetate 788824-14-6P, Methyl [3,5-dibromo-4-[(3-(hydrocinnamoylamino)-4-methoxyphenyl)oxy]phenyl]acetate 788824-15-7P, Methyl [3,5-dibromo-4-[(3-(hydrocinnamoylamino)-4-hydroxyphenyl)oxy]phenyl]acetate 788824-16-8P, Methyl [3,5-dibromo-4-[(3-hydroxy-4-methoxyphenyl)oxy]phenyl]acetate 788824-17-9P, Methyl [3,5-dibromo-4-[(3-[(4-(trifluoromethyl)phenyl)oxy]-4-methoxyphenyl)oxy]phenyl]acetate 788824-18-0P, Methyl [3,5-dibromo-4-[(3-[(4-(trifluoromethyl)phenyl)oxy]-4-hydroxyphenyl)oxy]phenyl]acetate 788824-19-1P, Methyl [3,5-dichloro-4-[(3-hydroxy-4-methoxyphenyl)oxy]phenyl]acetate 788824-20-4P, Methyl [3,5-dichloro-4-[(3-[(trifluoromethyl)sulfonyl]oxy]-4-methoxyphenyl)oxy]phenyl]acetate 788824-21-5P, Methyl [3,5-dichloro-4-[(3-phenyl-4-methoxyphenyl)oxy]phenyl]acetate 788824-22-6P, Methyl [3,5-dichloro-4-[(3-bromo-4-methoxyphenyl)oxy]phenyl]acetate 788824-23-7P, Methyl [3,5-dichloro-4-[(3-(4,4,5,5-tetramethyl-4,5-dihydro-1,3,2-dioxaborol-2-yl)-4-methoxyphenyl)oxy]phenyl]acetate 788824-24-8P, Methyl [3,5-dichloro-4-[(3-[4-(trifluoromethyl)phenyl]-4-methoxyphenyl)oxy]phenyl]acetate 788824-25-9P, Methyl [3,5-dibromo-4-[(3-[(1S)-2-hydroxy-1-phenylethyl]carbamoyl)-4-hydroxyphenyl)oxy]phenyl]acetate 788824-26-0P, Methyl [3,5-dibromo-4-[(3-[(4S)-4-phenyl-4,5-dihydrooxazol-2-yl]-4-hydroxyphenyl)oxy]phenyl]acetate 788824-27-1P, Methyl [3,5-dibromo-4-[(3-[(4R)-4-phenyl-4,5-dihydrooxazol-2-yl]-4-hydroxyphenyl)oxy]phenyl]acetate 788824-28-2P, Methyl [3,5-dibromo-4-[(3-(4-phenyloxazol-2-yl)-4-hydroxyphenyl)oxy]phenyl]acetate 788824-29-3P, 3,5-Dibromo-4-[(3-iodo-4-methoxy-5-isopropylphenyl)oxy]benzoic acid 788824-30-6P, Methyl 3,5-dichloro-4-[(3-phenyl-4-methoxyphenyl)oxy]benzoate 788824-31-7P, 3,5-Dichloro-4-[(3-phenyl-4-methoxyphenyl)oxy]benzenemethanol 788824-32-8P, 3,5-Dichloro-4-[(3-phenyl-4-hydroxyphenyl)oxy]benzyl bromide 788824-33-9P, Diethyl [3,5-dichloro-4-[(3-phenyl-4-hydroxyphenyl)oxy]benzyl]phosphonate 788824-34-0P, Ethyl [3,5-dichloro-4-[(3-phenyl-4-hydroxyphenyl)oxy]benzyl] (methyl)phosphinate 788824-35-1P, 3,5-Dichloro-4-[(3-phenyl-4-methoxyphenyl)oxy]benzyl bromide 788824-36-2P, [3,5-Dichloro-4-[(3-phenyl-4-methoxyphenyl)oxy]phenyl]acetonitrile 788824-37-3P, 5-[3,5-Dichloro-4-[(3-phenyl-4-methoxyphenyl)oxy]benzyl]-1H-tetrazole

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(intermediate; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)

IT 94-20-2, Chloropropamide 657-24-9, Metformin 9004-10-8, Insulin, biological studies 10238-21-8, Glyburide 21187-98-4, Glipizide 29094-61-9, Glipizide 56180-94-0, Acarbose 72432-03-2, Miglitol 93479-97-1, Glimepiride 97322-87-7, Troglitazone 109229-58-5, Englitazone 111025-46-8, Pioglitazone 122320-73-4, Rosiglitazone 141200-24-0, Darglitazone 430433-17-3, Glipyrider

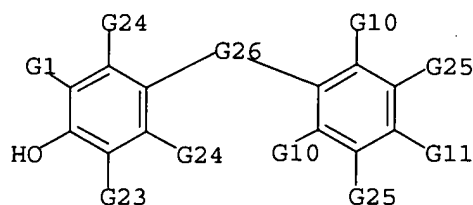
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pharmaceutical compns. also containing; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)

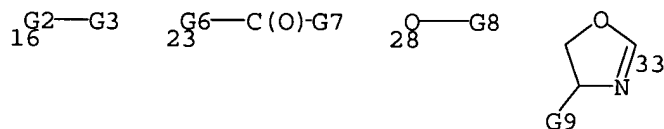
IT 64-04-0, Phenethylamine 98-80-6, Phenylboronic acid 100-66-3, Anisole, reactions 109-04-6, 2-Bromopyridine 122-52-1, Triethyl phosphite 402-43-7, 4-(Trifluoromethyl)bromobenzene 501-52-0, Hydrocinnamic acid 543-27-1, Isobutyl chloroformate 3336-41-2, 3,5-Dichloro-4-hydroxybenzoic acid 15205-15-9, 2-Chloro-6-fluorobenzylamine 15715-41-0, Diethyl methylphosphonite 20989-17-7, (S)-Phenylglycinol 73183-34-3 128796-39-4, [p-(Trifluoromethyl)phenyl]boronic acid 212688-02-3, Methyl (3,5-dibromo-4-hydroxyphenyl)acetate 219692-11-2, Methyl 3,5-dibromo-4-(3-isopropyl-4-methoxyphenoxy)benzoate

RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)

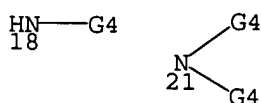
## MSTR 1



G1 = 16 / 23 / 28 / aryl<EC (6-10) C, RC (1-2)> (SO) /  
heteroaryl<EC (0-) N (0-) O (0-) S> (SO) /  
Cb<EC (3-8) C, BD (0-2) D> (SO) / 33

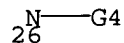


G2 = C(O) / CH2  
G3 = NH2 / 18 / 21

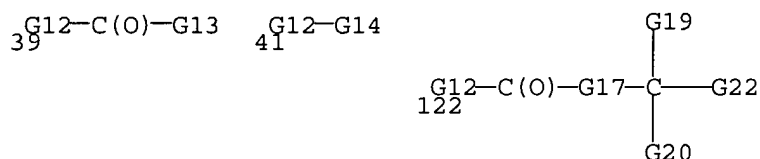


G4 = aryl<EC (6-10) C, RC (1-2)> (SO) /

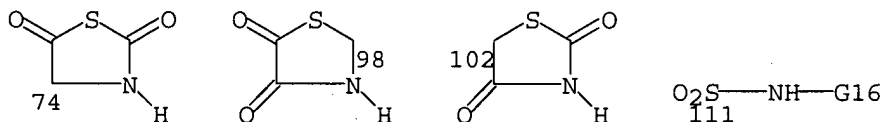
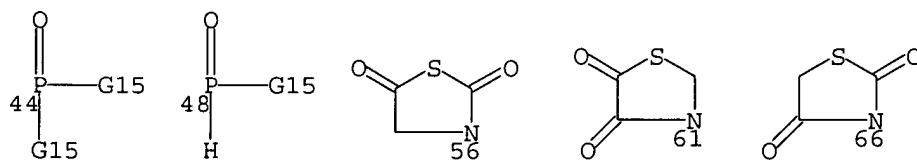
heteroaryl<EC (0-) N (0-) O (0-) S> (SO) /  
 alkyl<(1-12)> (SO (1-) G5) / Cb<EC (3-8) C, BD (0-2) D> (SO)  
 G5 = R / aryl<EC (6-10) C, RC (1-2)> (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S> (SO)  
 G6 = NH / 26



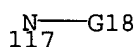
G7 = H / aryl<EC (6-10) C, RC (1-2)> (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S> (SO) /  
 alkyl<(1-12)> (SO (1-) G5) / Cb<EC (3-8) C, BD (0-2) D> (SO)  
 G8 = aryl<EC (6-10) C, RC (1-2)> (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S> (SO) /  
 alkyl<(1-12)> (SO (1-) G5)  
 G9 = H / aryl<EC (6-10) C, RC (1-2)> (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S> (SO) /  
 alkyl<(1-12)> (SO (1-) G5)  
 G10 = (-1) H / F / Cl / Br / I / **CF3** / alkyl<(1-4)> (SO) /  
 Cb<EC (3-5) C, BD (0-2) D> (SO)  
 G11 = 39 / 41 / 122



G12 = (0-4) CH2  
 G13 = OH (SO) / NHOH  
 G14 = 44 / 48 / SO3H / tetrazolyl / 56 / 61 / 66 / 74 /  
 98 / **102** / 111 / R<TX "carboxylic acid surrogate">



G15 = OH (SO)  
 G16 = acyl  
 G17 = NH / 117



G18 = alkyl<(1-4)> (SO)  
 G19 = alkyl<(1-12)> (SO) / H  
 G20 = alkyl<(1-12)> (SO) / H  
 G21 = (2-5) CH2  
 G22 = 123 / 126

<sup>G12</sup><sub>123</sub>-C(O)-<sup>G13</sup><sub>126</sub> <sup>G12</sup><sub>126</sub>-<sup>G14</sup><sub>126</sub>

G23 = H / F / Cl / Br / I / CF3 / CN / alkyl<(1-12)> (SO)  
 G24 = H / F / Cl / Br / I / CF3 / alkyl<(1-12)> (SO)  
 G25 = H / F / Cl / Br / I / CF3 / alkoxy<(1-12)> (SO) /  
       OH / CN / alkyl<(1-12)> (SO)  
 G26 = O / S / SO2 / S(O) / Se / C(O) / NH / CH2  
 G19+G20= G21  
 MPL: claim 1  
 NTE: and prodrugs and pharmaceutically acceptable salts  
 STE: and stereoisomers

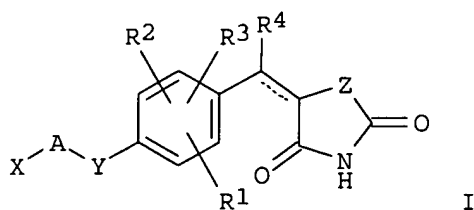
L28 ANSWER 2 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
 AN 141:140764 MARPAT  
 TI Preparation of amino acid phenoxy ethers as inhibitors of cytokines  
 IN Nag, Bishwajit; Nag, Abhijeet; Dey, Debendranath; Agarwal, Shiv Kumar  
 PA Bexel Pharmaceuticals, Inc., USA  
 SO U.S. Pat. Appl. Publ., 47 pp.  
    CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM C07D277-16  
    ICS A61K031-426; A61K031-421  
 NCL 514369000  
 CC 34-2 (Amino Acids, Peptides, and Proteins)  
    Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004142991	A1	20040722	US 2003-356113	20030131
	US 6794401	B2	20040921		
	WO 2004066964	A2	20040812	WO 2004-US790	20040113
	WO 2004066964	C2	20040902		
	WO 2004066964	A3	20050224		
	W:	AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI			
PRAI	US 2003-440772P		20030117		
	US 2003-356113		20030131		

GI





- AB Novel amino acid Ph ethers, e.g. tyrosine Ph ethers, or tautomeric forms, stereoisomers, polymorphs, pharmaceutically acceptable salts, or pharmaceutically acceptable solvates thereof [I; wherein the dotted line represents an optional double bond; Y = O, S, NR (wherein R represents hydrogen or alkyl); Z = O, S; R1-R4 = H, halogen, HO, nitro, cyano, formyl, amino, alkyl, alkoxy; A = a bond or substituted or unsubstituted aryl, heterocyclyl or heteroaryl ring; X = an alpha aminocarboxylic acid or alpha aminocarboxylic acid derivative bonded to A or Y through its alpha side chain] are prepared Also provided are a method for reducing glucose, free fatty acids, cholesterol, or triglyceride levels in plasma,. These compds. inhibit cytokines such as TNF $\alpha$ , IL-6, and IL-1 $\beta$  and exhibit activity for the treatment of immunol. diseases mediated by cytokines, autoimmune diseases such as multiple sclerosis and rheumatoid arthritis, inflammation mediated by cyclooxygenase, obesity, hyperlipidemia, hypertension, neurol. diseases and diabetes, or a disorder associated with insulin resistance. Unlike other thiazolidine-compds. (TZD mols.), the compds. I exhibit no adipocyte differentiation, reduce body weight gain, and appear to have no affinity for PPAR-g and thereby are different from known TZD mols., which typically have adipocyte differentiation activity, increase weight gain, and are PPAR-g agonists. Thus, Me 2-[(tert-butoxycarbonyl)amino]-3-(4-hydroxyphenyl)propanoate was treated with NaH in DMF and etherified with 4-Fluorobenzaldehyde at 80° to give Me 2-[(tert-butoxycarbonyl)amino]-3-[-(4-formylphenoxy)phenyl]propanoate which was condensed with 2,4-thiazolidinedione in the presence of benzoic acid and piperidine at 145-155° under reflux with continuous removal of water using Dean-Stark apparatus for 5 h followed by treatment with HCl in CH<sub>2</sub>Cl<sub>2</sub> to give 5-[4-[4-(2-amino-2-methoxycarbonyl)ethyl]phenoxy]benzylidene]thiazolidine-2,4-dione hydrochloride (II). Catalytic hydrogenation of II over Pd/C in methanol gave 5-[4-[4-(2-amino-2-methoxycarbonyl)ethyl]phenoxy]benzyl]thiazolidine-2,4-dione (III). III lowered pro-inflammatory cytokines in human macrophage cells and in an animal model of inflammation inhibited carrageenan-induced paw edema in SD rats.
- ST amino acid phenoxy ether prepn inhibitor cytokine; tyrosine phenyl ether prepn treatment cytokine mediated immunol disease; autoimmune diseases treatment tyrosine phenyl ether prepn; multiple sclerosis rheumatoid arthritis treatment tyrosine phenyl ether prepn; inflammation mediated cyclooxygenase treatment tyrosine phenyl ether prepn; obesity hyperlipidemia hypertension treatment tyrosine phenyl ether prepn; neurol disease diabetes treatment tyrosine thiazolidinylmethylphenyl ether prepn
- IT Fatty acids, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (agents for reducing free fatty acids in plasma; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- IT Glycerides, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)

(agents for reducing triglycerides in plasma; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

- IT Immunity  
(disorder; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- IT Lipids, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hyperlipidemia; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- IT Anti-inflammatory agents  
Anticholesteremic agents  
Antidiabetic agents  
Antihypertensives  
Antiobesity agents  
Antirheumatic agents  
Autoimmune disease  
Diabetes mellitus  
Human  
Hypertension  
Hypolipemic agents  
Inflammation  
Multiple sclerosis  
Nervous system, disease  
Obesity  
Rheumatoid arthritis  
(preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- IT Amino acids, preparation  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- IT Cytokines  
Interleukin 1 $\beta$   
Interleukin 6  
Tumor necrosis factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of tyrosine thiazolidinylmethylphenyl ethers derivs. as inhibitors of TNF $\alpha$ , IL-6, and IL-1 $\beta$ )
- IT 9004-10-8, Insulin, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(disorders associated with insulin resistance; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- IT 39391-18-9, Cyclooxygenase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- IT 724760-26-3P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzylidene]thiazolidine-2,4-dione

724760-27-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzylidene]thiazolidine-2,4-dione

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(intermediate; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

IT 724760-25-2P, Methyl 2-[(tert-butoxycarbonyl)amino]-3-[4-(4-formylphenoxy)phenyl]propanoate

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

IT 724760-24-1P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione hydrochloride 724760-28-5P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione 724760-29-6P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzylidene]thiazolidine-2,4-dione 724760-30-9P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzyl]thiazolidine-2,4-dione 724760-31-0P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzylidene]oxazolidine-2,4-dione 724760-32-1P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzylidene]oxazolidine-2,4-dione 724760-33-2P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzyl]oxazolidine-2,4-dione 724760-34-3P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzyl]oxazolidine-2,4-dione 724760-35-4P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzylidene]oxazolidine-2,4-dione 724760-36-5P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzylidene]oxazolidine-2,4-dione 724760-37-6P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzyl]oxazolidine-2,4-dione 724760-38-7P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzyl]oxazolidine-2,4-dione 724760-39-8P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzylidene]thiazolidine-2,4-dione 724760-40-1P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzylidene]thiazolidine-2,4-dione 724760-41-2P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzyl]thiazolidine-2,4-dione 724760-42-3P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzyl]thiazolidine-2,4-dione 724760-43-4P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzylidene]thiazolidine-2,4-dione 724760-44-5P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzylidene]thiazolidine-2,4-dione 724760-45-6P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzyl]thiazolidine-2,4-dione 724760-46-7P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzyl]thiazolidine-2,4-dione 724760-47-8P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzylidene]oxazolidine-2,4-dione 724760-49-0P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzylidene]oxazolidine-2,4-dione 724760-50-3P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzyl]oxazolidine-2,4-dione 724760-51-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzyl]oxazolidine-2,4-dione 724760-52-5P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzylidene]oxazolidine-2,4-dione 724760-53-6P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzylidene]oxazolidine-2,4-dione 724760-55-8P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzyl]oxazolidine-2,4-dione 724760-56-9P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzyl]oxazolidine-2,4-dione 724760-58-1P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzylidene]thiazolidine-2,4-dione

724760-59-2P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzylidene]thiazolidine-2,4-dione 724760-60-5P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzyl]thiazolidine-2,4-dione 724760-61-6P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzyl]thiazolidine-2,4-dione 724760-62-7P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzylidene]thiazolidine-2,4-dione 724760-63-8P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzylidene]thiazolidine-2,4-dione 724760-64-9P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzyl]thiazolidine-2,4-dione 724760-65-0P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzyl]thiazolidine-2,4-dione 724760-66-1P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzylidene]oxazolidine-2,4-dione 724760-67-2P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzylidene]oxazolidine-2,4-dione 724760-68-3P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzyl]oxazolidine-2,4-dione 724760-69-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzyl]oxazolidine-2,4-dione 724760-70-7P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzylidene]thiazolidine-2,4-dione 724760-71-8P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzylidene]thiazolidine-2,4-dione 724760-72-9P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzyl]thiazolidine-2,4-dione 724760-73-0P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzyl]thiazolidine-2,4-dione 724760-74-1P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzylidene]oxazolidine-2,4-dione 724760-75-2P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzylidene]oxazolidine-2,4-dione 724760-76-3P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzyl]oxazolidine-2,4-dione 724760-77-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzyl]oxazolidine-2,4-dione 724760-78-5P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzylidene]thiazolidine-2,4-dione 724760-79-6P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzylidene]thiazolidine-2,4-dione 724760-80-9P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzyl]thiazolidine-2,4-dione 724760-81-0P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzyl]thiazolidine-2,4-dione 724760-82-1P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzylidene]oxazolidine-2,4-dione 724760-83-2P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzylidene]oxazolidine-2,4-dione 724760-84-3P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzyl]oxazolidine-2,4-dione 724760-85-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzyl]oxazolidine-2,4-dione 724760-86-5P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzylidene]thiazolidine-2,4-dione 724760-87-6P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzylidene]thiazolidine-2,4-dione 724760-88-7P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzyl]thiazolidine-2,4-dione 724760-89-8P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzyl]thiazolidine-2,4-dione 724760-90-1P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzylidene]oxazolidine-2,4-dione 724760-91-2P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzylidene]oxazolidine-2,4-dione 724760-92-3P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzyl]oxazolidine-2,4-dione 724760-93-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzyl]oxazolidine-2,4-dione 724760-94-5P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzylidene]thiazolidine-2,4-dione 724760-95-6P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzylidene]thiazolidine-2,4-dione 724760-96-7P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzyl]thiazolidine-2,4-dione 724760-97-8P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzyl]thiazolidine-2,4-

dione 724760-98-9P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzylidene]oxazolidine-2,4-dione 724760-99-0P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzylidene]oxazolidine-2,4-dione 724761-00-6P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzyl]oxazolidine-2,4-dione 724761-01-7P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzyl]oxazolidine-2,4-dione 724761-02-8P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzylidene]thiazolidine-2,4-dione 724761-03-9P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzylidene]thiazolidine-2,4-dione 724761-04-0P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzyl]thiazolidine-2,4-dione 724761-05-1P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzyl]thiazolidine-2,4-dione 724761-06-2P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzylidene]oxazolidine-2,4-dione 724761-07-3P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzylidene]oxazolidine-2,4-dione 724761-08-4P, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzyl]oxazolidine-2,4-dione 724761-09-5P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzyl]oxazolidine-2,4-dione 724761-10-8P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,6-difluorophenoxy]benzylidene]oxazolidine-2,4-dione 724761-11-9P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,6-difluorophenoxy]benzylidene]oxazolidine-2,4-dione 724761-12-0P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,6-difluorophenoxy]benzyl]oxazolidine-2,4-dione 724761-13-1P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,6-difluorophenoxy]benzyl]oxazolidine-2,4-dione 724761-14-2P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,6-difluorophenoxy]benzylidene]thiazolidine-2,4-dione 724761-15-3P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,6-difluorophenoxy]benzylidene]thiazolidine-2,4-dione 724761-16-4P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,6-difluorophenoxy]benzyl]thiazolidine-2,4-dione 724761-17-5P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,6-difluorophenoxy]benzyl]thiazolidine-2,4-dione 724761-18-6P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,3-difluorophenoxy]benzylidene]thiazolidine-2,4-dione 724761-19-7P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,3-difluorophenoxy]benzylidene]thiazolidine-2,4-dione 724761-20-0P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,3-difluorophenoxy]benzyl]thiazolidine-2,4-dione 724761-21-1P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,3-difluorophenoxy]benzyl]thiazolidine-2,4-dione 724761-22-2P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,3-difluorophenoxy]benzylidene]oxazolidine-2,4-dione 724761-23-3P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,3-difluorophenoxy]benzylidene]oxazolidine-2,4-dione 724761-24-4P, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,3-difluorophenoxy]benzyl]oxazolidine-2,4-dione 724761-25-5P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,3-difluorophenoxy]benzyl]oxazolidine-2,4-dione 724761-26-6P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-methylphenoxy]benzylidene]oxazolidine-2,4-dione 724761-27-7P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzylidene]oxazolidine-2,4-dione 724761-28-8P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-methylphenoxy]benzyl]oxazolidine-2,4-dione 724761-29-9P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzyl]oxazolidine-2,4-dione 724761-30-2P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-methylphenoxy]benzylidene]thiazolidine-2,4-dione 724761-31-3P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzylidene]thiazolidine-2,4-dione 724761-32-4P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-methylphenoxy]benzyl]thiazolidine-2,4-dione 724761-33-5P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzyl]thiazolidine-2,4-dione 724761-34-6P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-nitrophenoxy]benzylidene]thiazolidine-2,4-dione 724761-35-7P,

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5-[4-[4-(2-Amino-2-carboxyethyl)-3-trifluoromethylphenoxy]benzylidene]thiazolidine-2,4-dione 724761-76-6P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzylidene]thiazolidine-2,4-dione 724761-77-7P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-trifluoromethylphenoxy]benzyl]thiazolidine-2,4-dione 724761-78-8P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzyl]thiazolidine-2,4-dione 724761-79-9P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-trifluoromethylphenoxy]benzylidene]oxazolidine-2,4-dione 724761-80-2P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzylidene]oxazolidine-2,4-dione 724761-81-3P, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-trifluoromethylphenoxy]benzyl]oxazolidine-2,4-dione 724761-82-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzyl]oxazolidine-2,4-dione 724761-83-5P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione 724761-84-6P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzylidene]oxazolidine-2,4-dione 724761-85-7P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzyl]oxazolidine-2,4-dione 724761-86-8P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzylidene]thiazolidine-2,4-dione 724761-87-9P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzyl]thiazolidine-2,4-dione 724761-88-0P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzylidene]oxazolidine-2,4-dione 724761-89-1P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzyl]oxazolidine-2,4-dione

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

IT 459-57-4, 4-Fluorobenzaldehyde 2295-31-0, 2,4-Thiazolidinedione 2346-26-1, 2,4-Oxazolidinedione 188576-13-8, Methyl 2-[(tert-butoxycarbonyl)amino]-3-(4-hydroxyphenyl)propanoate

RL: RCT (Reactant); RACT (Reactant or reagent)

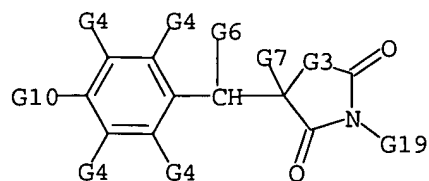
(reactant; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (3) Anon; EP 1148054 A1 2001 CAPLUS
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- (17) Tajima; US 6664281 B1 2003 CAPLUS
- (18) Yoneda; US 6667328 B2 2003 CAPLUS

MSTR 1



G1 = O / S / NH / 17

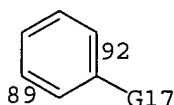
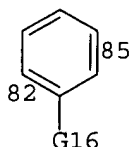
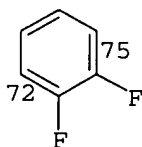
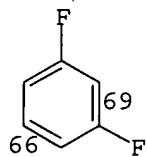


G2 = alkyl

G3 = O / S

G4 = (1-) H / F / Cl / Br / I / OH / NO<sub>2</sub> / CN / CHO /  
NH<sub>2</sub> / alkyl (SO) / alkoxy (SO) / (SC Me / CF<sub>3</sub>)

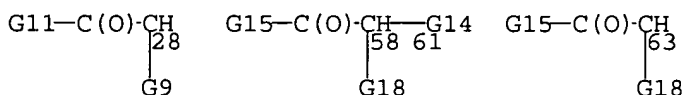
G5 = NULL / arylene (SO (1-) G12) / Hy (SO (1-) G12) /  
heteroarylene (SO (1-) G12) / (SC p-C<sub>6</sub>H<sub>4</sub> / 66-24 69-16 /  
72-24 75-16 / 82-24 85-16 / 89-24 92-16 )



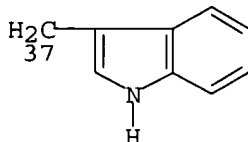
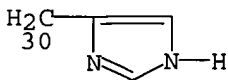
G6 = H / F / Cl / Br / I / OH / NO<sub>2</sub> / CN / CHO / NH<sub>2</sub> /  
alkyl (SO) / alkoxy (SO)

G7 = H

G8 = 28 / 61 / 63 / R<TX "amino acid residue">

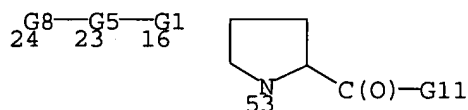


G9 = H / R<TX "amino acid side chain"> /  
(SC CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NHC(NH)NH<sub>2</sub> / CH<sub>2</sub>CONH<sub>2</sub> / CH<sub>2</sub>SH / CH<sub>2</sub>CH<sub>2</sub>CONH<sub>2</sub> /  
30 / CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> / CH<sub>2</sub>CH<sub>2</sub>SMe / CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> / CH<sub>2</sub>OH /  
CH(OH)Me / 37 / CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>OH-p)

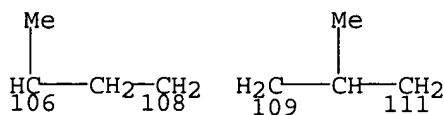


G10 = 16 / (SC 53)

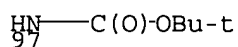




G11 = OH (SO) / (SC alkoxy / OMe) / (EX NH2)  
 G12 = R / (EX F / Cl / Br / I / OH / NO2 / CN / CHO /  
       NH2 / alkyl (SO (1-) G13) / alkoxy (SO (1-) G13))  
 G13 = R / F / Cl / Br / I  
 G14 = R<TX "amino acid side chain"> / alkylene (SO) /  
       (SC CH2 / 106-58 108-23 / 109-58 111-23 )



G15 = OH (SO) / (SC OMe) / (EX alkoxy / NH2)  
 G16 = F / Me / NO2 / NH2 / CF3  
 G17 = F / CF3  
 G18 = NH2 (SO) / (SC 97)



G19 = H / 100



G20 = R<TX "pharmaceutically acceptable salt"> / (SC 102 /  
       104 / Na / K / Mg)

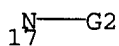


G6 +G7 = NULL  
 MPL: claim 1  
 NTE: and tautomers, polymorphs, and pharmaceutically acceptable solvates  
 STE: and stereoisomers

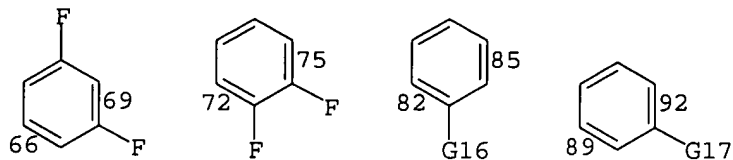
MSTR 2

G10-H

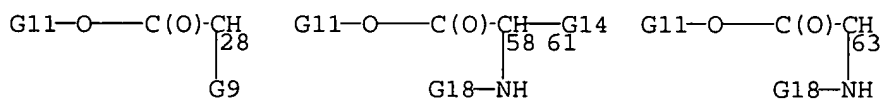
G1 = O / S / NH / 17



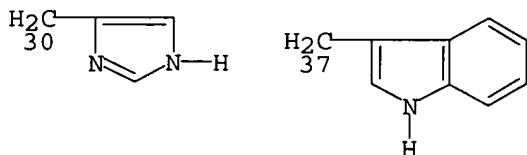
G2 = alkyl  
 G5 = NULL / arylene (SO (1-) G12) / Hy (SO (1-) G12) /  
 heteroarylene (SO (1-) G12) / (SC p-C6H4 / 66-24 69-16 /  
 72-24 75-16 / 82-24 85-16 / 89-24 92-16 )



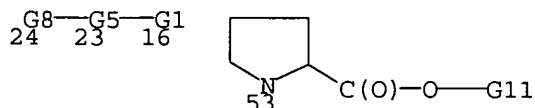
G8 = 28 / 61 / 63 / R<TX "amino acid residue">



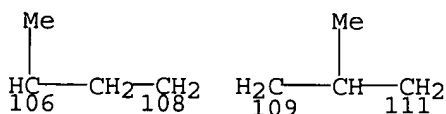
G9 = H / R<TX "amino acid side chain"> /  
 (SC CH2CH2CH2NHC(NH)NH2 / CH2CONH2 / CH2SH / CH2CH2CONH2 /  
 30 / CH2CH2CH2CH2NH2 / CH2CH2SMe / CH2CH2CH2NH2 / CH2OH /  
 CH(OH)Me / 37 / CH2C6H4OH-p)



G10 = 16 / (SC 53)

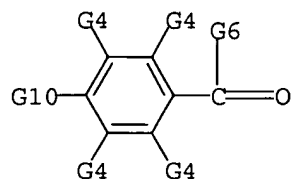


G11 = R<TX "protecting group">  
 G12 = R / (EX F / Cl / Br / I / OH / NO2 / CN / CHO /  
 NH2 / alkyl (SO (1-) G13) / alkoxy (SO (1-) G13))  
 G13 = R / F / Cl / Br / I  
 G14 = R<TX "amino acid side chain"> / alkylene (SO) /  
 (SC CH2 / 106-58 108-23 / 109-58 111-23 )

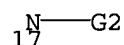


G16 = F / Me / NO2 / NH2 / CF3  
 G17 = F / CF3  
 G18 = R<TX "protecting group">  
 MPL: claim 18

MSTR 3



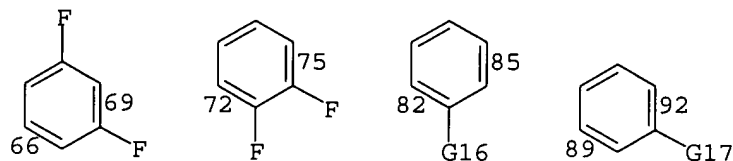
G1 = O / S / NH / 17



G2 = alkyl

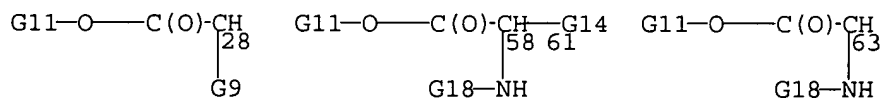
G4 = (1-) H / F / Cl / Br / I / OH / NO2 / CN / CHO / NH2 / alkyl (SO) / alkoxy (SO) / (SC Me / CF3)

G5 = NULL / arylene (SO (1-) G12) / Hy (SO (1-) G12) / heteroarylene (SO (1-) G12) / (SC p-C6H4 / 66-24 69-16 / 72-24 75-16 / 82-24 85-16 / 89-24 92-16 )

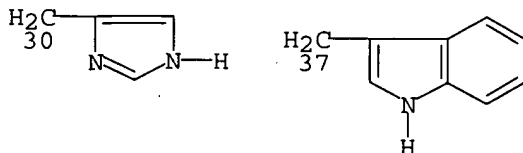


G6 = H / F / Cl / Br / I / OH / NO2 / CN / CHO / NH2 / alkyl (SO) / alkoxy (SO)

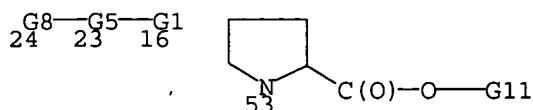
G8 = 28 / 61 / 63 / R&lt;TX "amino acid residue"&gt;



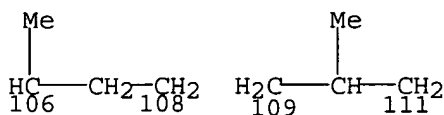
G9 = H / R&lt;TX "amino acid side chain"&gt; / (SC CH2CH2CH2NHC(NH)NH2 / CH2CONH2 / CH2SH / CH2CH2CONH2 / 30 / CH2CH2CH2CH2NH2 / CH2CH2SMe / CH2CH2CH2NH2 / CH2OH / CH(OH)Me / 37 / CH2C6H4OH-p)



G10 = 16 / R&lt;TX "leaving group"&gt; / (SC 53)

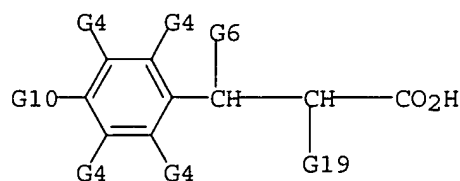


G11 = R<TX "protecting group">  
 G12 = R / (EX F / Cl / Br / I / OH / NO2 / CN / CHO /  
 NH2 / alkyl (SO (1-) G13) / alkoxy (SO (1-) G13))  
 G13 = R / F / Cl / Br / I  
 G14 = R<TX "amino acid side chain"> / alkylene (SO) /  
 (SC CH2 / 106-58 108-23 / 109-58 111-23 )



G16 = F / Me / NO2 / NH2 / CF3  
 G17 = F / CF3  
 G18 = R<TX "protecting group">  
 MPL: claim 18

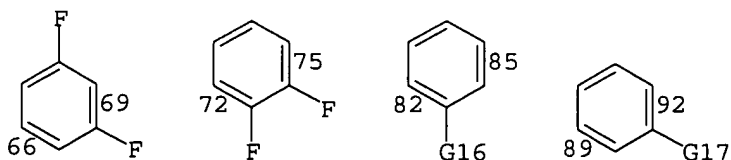
MSTR 4



G1 = O / S / NH / 17

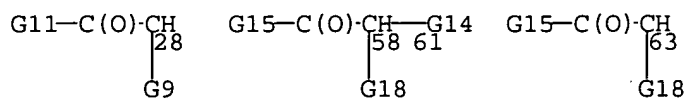


G2 = alkyl  
 G4 = (1-) H / F / Cl / Br / I / OH / NO2 / CN / CHO /  
 NH2 / alkyl (SO) / alkoxy (SO) / (SC Me / CF3)  
 G5 = NULL / arylene (SO (1-) G12) / Hy (SO (1-) G12) /  
 heteroarylene (SO (1-) G12) / (SC p-C6H4 / 66-24 69-16 /  
 72-24 75-16 / 82-24 85-16 / 89-24 92-16 )

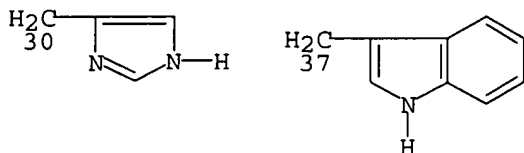


G6 = H / F / Cl / Br / I / OH / NO2 / CN / CHO / NH2 /

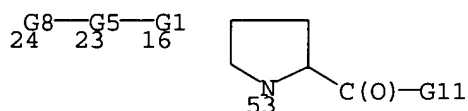
alkyl (SO) / alkoxy (SO)  
 G8 = 28 / 61 / 63 / R<TX "amino acid residue">



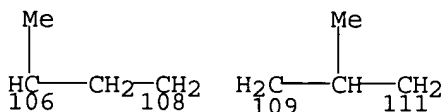
G9 = H / R<TX "amino acid side chain"> /  
 (SC CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NHC(NH)NH<sub>2</sub> / CH<sub>2</sub>CONH<sub>2</sub> / CH<sub>2</sub>SH / CH<sub>2</sub>CH<sub>2</sub>CONH<sub>2</sub> /  
 30 / CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> / CH<sub>2</sub>CH<sub>2</sub>SMe / CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> / CH<sub>2</sub>OH /  
 CH(OH)Me / 37 / CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>OH-p)



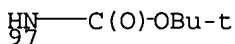
G10 = 16 / (SC 53)



G11 = OH (SO) / (SC alkoxy / OMe) / (EX NH<sub>2</sub>)  
 G12 = R / (EX F / Cl / Br / I / OH / NO<sub>2</sub> / CN / CHO /  
 NH<sub>2</sub> / alkyl (SO (1-) G13) / alkoxy (SO (1-) G13))  
 G13 = R / F / Cl / Br / I  
 G14 = R<TX "amino acid side chain"> / alkylene (SO) /  
 (SC CH<sub>2</sub> / 106-58 108-23 / 109-58 111-23 )

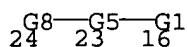


G15 = OH (SO) / (SC OMe) / (EX alkoxy / NH<sub>2</sub>)  
 G16 = F / Me / NO<sub>2</sub> / NH<sub>2</sub> / CF<sub>3</sub>  
 G17 = F / CF<sub>3</sub>  
 G18 = NH<sub>2</sub> (SO) / (SC 97)

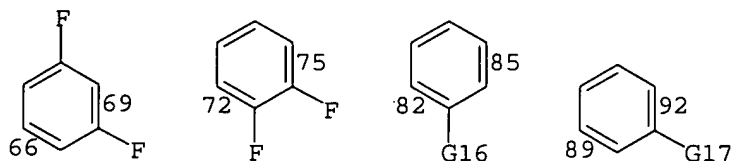


G19 = F / Cl / Br / I  
 MPL: claim 19

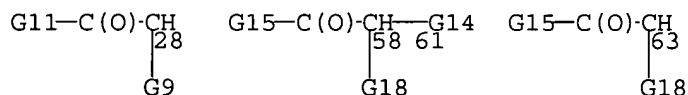
MSTR 5



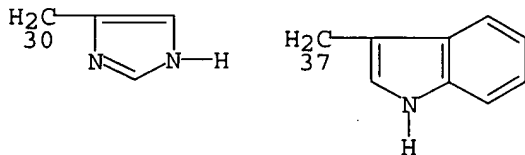
G1 = R<TX "leaving group"> / OH  
 G5 = NULL / arylene (SO (1-) G12) / Hy (SO (1-) G12) /  
 heteroarylene (SO (1-) G12) / (SC p-C6H4 / 66-24 69-16 /  
 72-24 75-16 / 82-24 85-16 / 89-24 92-16 )



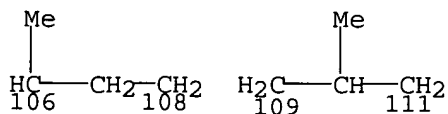
G8 = 28 / 61 / 63 / R<TX "amino acid residue">



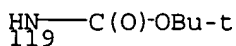
G9 = H / R<TX "amino acid side chain"> /  
 (SC CH2CH2CH2NHC(NH)NH2 / CH2CONH2 / CH2SH / CH2CH2CONH2 /  
 30 / CH2CH2CH2CH2NH2 / CH2CH2SMe / CH2CH2CH2NH2 / CH2OH /  
 CH(OH)Me / 37 / CH2C6H4OH-p)



G11 = OH (SO) / (SC alkoxy / OMe) / (EX NH2)  
 G12 = R / (EX F / Cl / Br / I / OH / NO2 / CN / CHO /  
 NH2 / alkyl (SO (1-) G13) / alkoxy (SO (1-) G13))  
 G13 = R / F / Cl / Br / I  
 G14 = R<TX "amino acid side chain"> / alkylene (SO) /  
 (SC CH2 / 106-58 108-23 / 109-58 111-23 )

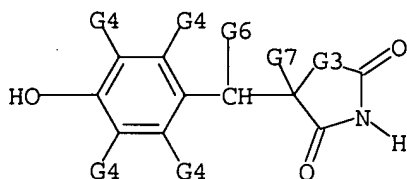


G15 = OH (SO) / (SC OMe) / (EX alkoxy / NH2)  
 G16 = F / Me / NO2 / NH2 / CF3  
 G17 = F / CF3  
 G18 = NH2 (SO) / (SC 119)



MPL: claim 20  
 NTE: also incorporates claim 21

MSTR 6



G3 = O / S  
 G4 = (1-) H / F / Cl / Br / I / OH / NO2 / CN / CHO /  
 NH2 / alkyl (SO) / alkoxy (SO) / (SC Me / CF3)  
 G6 = H / F / Cl / Br / I / OH / NO2 / CN / CHO / NH2 /  
 alkyl (SO) / alkoxy (SO)  
 G7 = H  
 G6 +G7 = NULL  
 MPL: claim 20

L28 ANSWER 3 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
 AN 141:17653 MARPAT  
 TI Method for promoting nail growth using thyromimetic compounds  
 IN Doherty, Niall Stephen; Parkinson, Tanya  
 PA Pfizer Products Inc., USA  
 SO PCT Int. Appl., 77 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K031-165  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047827	A1	20040610	WO 2003-IB5186	20031114
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2002-429040P 20021125

AB The invention provides methods and compns. for increasing the rate of nail growth in mammals, especially humans, using thyromimetic compds.  
 ST nail growth promotion thyromimetic compd  
 IT Infection  
 (bacterial; thyromimetic compds. for promotion of nail growth, and use with other agents)

IT Heart  
(cardiac-sparing thyromimetic compound; thyromimetic compds. for promotion of nail growth)

IT Cardiotoxicity  
Heart  
(cardiac-sparing thyromimetic compound; thyromimetic compds. for promotion of nail growth, and use with other agents)

IT Fungi  
(infection; thyromimetic compds. for promotion of nail growth, and use with other agents)

IT Drug delivery systems  
(prodrugs; thyromimetic compds. for promotion of nail growth)

IT Drug delivery systems  
Human  
Nail (anatomical)  
(thyromimetic compds. for promotion of nail growth)

IT Thyroid hormones  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(thyromimetic compds. for promotion of nail growth)

IT Antibacterial agents  
Fungicides  
(thyromimetic compds. for promotion of nail growth, and use with other agents)

IT Drug delivery systems  
(topical; thyromimetic compds. for promotion of nail growth)

IT Heart  
(toxicity, cardiac-sparing thyromimetic compound; thyromimetic compds. for promotion of nail growth)

IT Heart  
(toxicity, cardiac-sparing thyromimetic compound; thyromimetic compds. for promotion of nail growth, and use with other agents)

IT 290349-38-1 290349-63-2 290350-21-9 290350-58-2 290352-09-9  
290352-10-2 290352-11-3 290352-28-2 290352-70-4 290352-71-5  
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503631-66-1 503631-67-2 503631-68-3 503631-69-4 503631-70-7  
503631-71-8 503631-72-9 503631-73-0 503631-74-1 503631-75-2  
503631-76-3  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(thyromimetic compds. for promotion of nail growth)

IT 29342-05-0, Ciclopirox 84625-61-6, Itraconazole 86386-73-4,



Fluconazole 91161-71-6, Terbinafine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(thyromimetic compds. for promotion of nail growth, and use with other agents)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bean; ARCH INTERN MED 1980, V140, P73 MEDLINE

(2) Lee, D; WO 0051971 A 2000 CAPLUS

(3) Scott, Y; WO 0073265 A 2000 CAPLUS

(4) Scott, Y; WO 0073292 A 2000 CAPLUS

MSTR 1

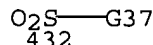
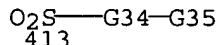
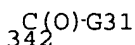
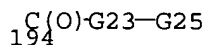
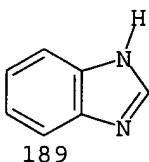
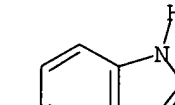
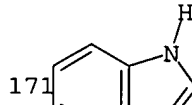
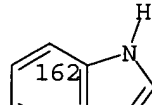
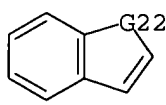
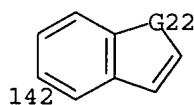
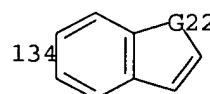
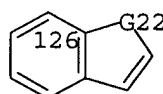
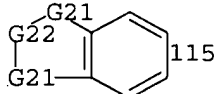
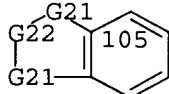
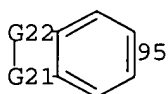
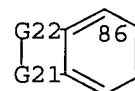
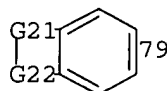
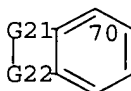
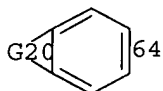
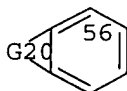
G3—G18—G1—G15—C(O)—C(O)—G17

G1 = p-C6H4 (SO (1-2) G2)

G2 = F / Cl / Br / I / alkyl<(1-6)> / CF3 / CN / OCF3 /  
alkoxy<(1-6)> / (SC Me)

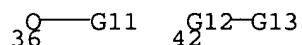
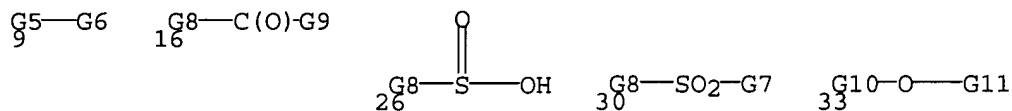
G3 = 2 / 56 / 64 / 70 / 79 / 86 / 95 / 105 / 115 / 126 /  
134 / 142 / 150 / 162 / 171 / 180 / 189 / (SC 194 / 342 /  
413 / 432 / 444)

G4—G19  
2

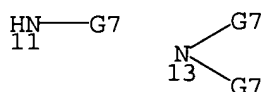


G12—G38  
444

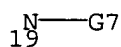
G4 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> / F / Cl /  
 Br / I / CN / aryl / heteroaryl<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ> / cycloalkyl<(3-10)> / Hy<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ, AR (0), BD (ALL) SE> / 9 / 16 / 26 / 30 / 33 / 36 /  
 42



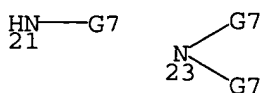
G5 = SO2 / C(O) / alkylene<(1-6)>  
 G6 = NH2 / 11 / 13 / Hy<EC (1-2) Q (1-) N (0-) O (0-)  
 S (0) OTHERQ, AN (1-) N> (SO)



G7 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> (SO) / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO)  
 G8 = NH / 19



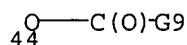
G9 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> (SO) / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO) / NH2 / 21 / 23 /  
 Hy<EC (1-2) Q (1-) N (0-) O (0-) S (0) OTHERQ, AN (1-) N>  
 (SO)



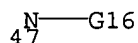
G10 = alkylene<(1-6)>  
 G11 = alkyl<(1-12)> / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / CF3 / 38 / 40 / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO)



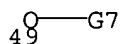
G12 = S / S(O) / SO2  
 G13 = alkyl<(1-12)> / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO)  
 G14 = F / Cl / Br / I / alkyl<(1-6)> / CF3 / CN / OCF3 /  
 alkoxy<(1-6)> / OH / 44



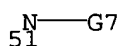
G15 = NH / 47



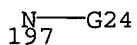
G16 = alkyl<(1-6)>  
 G17 = OH / 49 / NH2 / alkylamino<(1-6)> /  
 dialkylamino<(1-6)> / (SC OMe / OEt / OPr-i / NHMe)



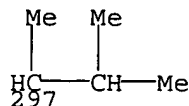
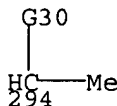
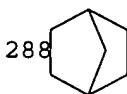
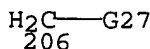
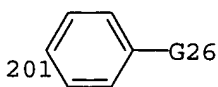
G18 = O / S / S(O) / SO2 / CH2 / NH / 51

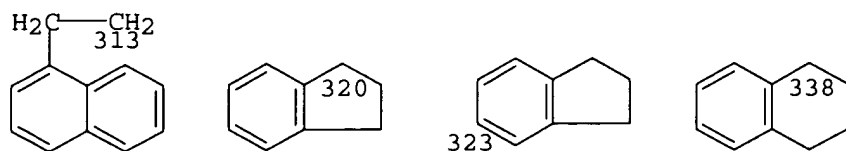


G19 = phenylene (SO (1-3) G14)  
 G20 = alkylene<EC (3-7) C, DC (0) M3>  
 G21 = alkylene<EC (2-6) C, DC (0) M3>  
 G22 = O / S / NH (SO)  
 G23 = NH / 197

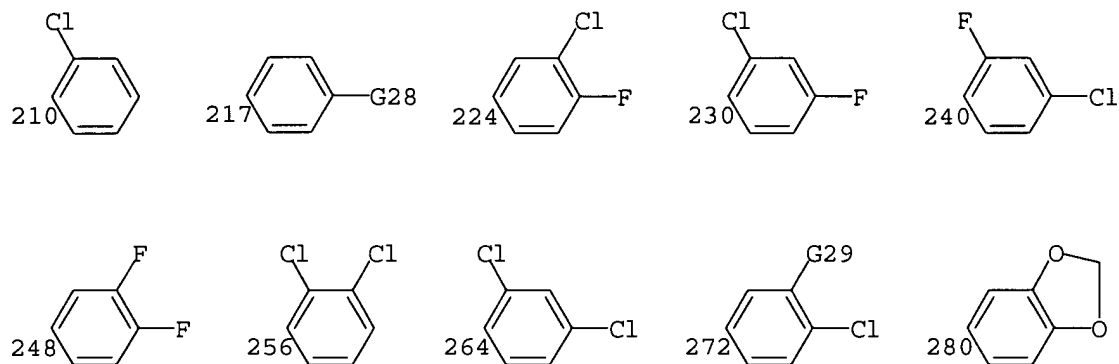


G24 = Me / Et  
 G25 = Me / Et / Pr-i / Pr-n / Bu-i / Bu-n / pentyl /  
 hexyl / 201 / 206 / cyclopropyl / cyclobutyl / cyclopentyl /  
 cyclohexyl / 288 / 294 / C(Me)2CH2Me / 297 / CH2CMe3 / 313 /  
 320 / 323 / 338

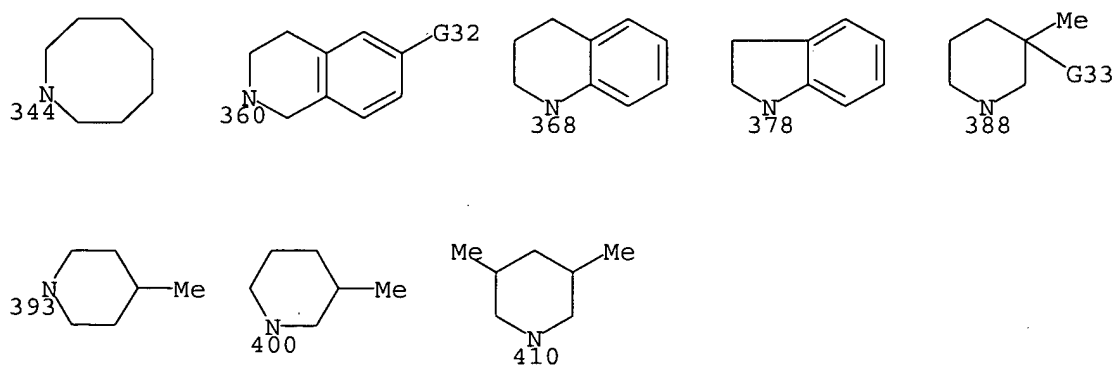




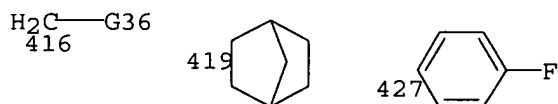
G26 = F / Ph  
 G27 = 2-thienyl / cyclopropyl / cyclohexyl / 210 / 217 /  
 224 / 230 / 240 / 248 / 256 / 264 / 272 / 1-naphthyl / 280



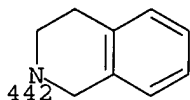
G28 = Cl / F / Pr-i / Bu-t  
 G29 = Cl / CF3  
 G30 = Ph / cyclohexyl / naphthyl  
 G31 = 344 / hexahydroazepino / piperidino / pyrrolidino /  
 morpholino / 360 / 368 / 378 / 388 / 393 / 400 / 410



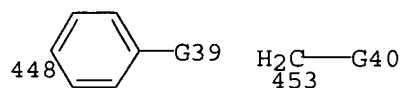
G32 = H / Me / OMe  
 G33 = Me / Ph  
 G34 = NH / NMe  
 G35 = Pr-i / 416 / cyclopropyl / 419 / Me / Et / 427 /  
 cyclobutyl / cyclopentyl / cyclohexyl / Pr-n / Bu-n /  
 pentyl / hexyl / octyl / decyl



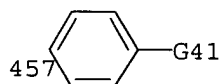
G36 = 2-thienyl / cyclopropyl / CH<sub>2</sub>OH  
 G37 = pyrrolidino / piperidino / morpholino / 442



G38 = 448 / naphthyl / 453 / Pr-i / cyclopentyl /  
 p-C<sub>6</sub>H<sub>4</sub>Me / Me / Et / Bu-n / Pr-n

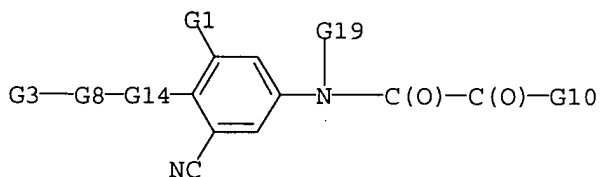


G39 = Cl / H  
 G40 = cyclopropyl / cyclobutyl / cyclohexyl / 457



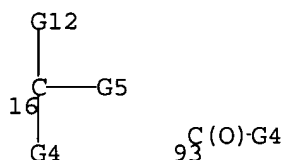
G41 = F / H  
 MPL: claim 4  
 NTE: or prodrugs or pharmaceutically acceptable salts  
 NTE: substitution is restricted  
 NTE: additional substitution also claimed  
 STE: or geometric or optical isomers

MSTR 2

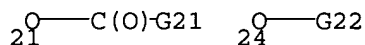


G1 = F / Cl / Br / I / alkyl<(1-8)> / CN /  
 perfluoroalkyl<(1-8)> / (SC Me)  
 G2 = alkyl<(1-8)>  
 G3 = F / Cl / Br / I / perfluoroalkyl<(1-8)> /  
 alkyl<(1-8)> / CHO / alkylcarbonyl<(1-8)> /  
 alkyl<(1-8)> (SR OH) / aryl (SO (1-2) G16) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ>  
 (SO (1-2) G16) / alkyl<(1-8)> (SR aryl) /

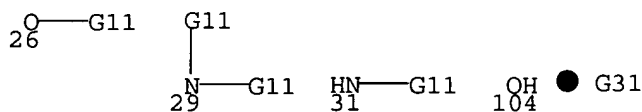
arylcarbonyl (SO (1-2) G16) / cycloalkyl<(3-10)>  
 (SO (1-2) G16) / alkyl<(1-8)> (SO cycloalkyl<(3-10)>) / 16 /  
 93



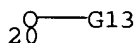
G4 = H / alkyl<(1-8)> / aryl (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ> (SO) /  
 alkyl<(1-8)> (SR aryl) / cycloalkyl<(3-10)> (SO) /  
 alkyl<(1-8)> (SR cycloalkyl<(3-10)>)  
 G5 = H / alkyl<(1-8)>  
 G6 = OH (SO) / 21 / 24



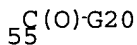
G7 = F / Cl / Br / I / alkyl<(1-8)> /  
 perfluoroalkyl<(1-8)>  
 G8 = phenylene (SR (3) G9)  
 G9 = (-1) G2 / (1) G6 / (-1) G7 / H  
 G10 = OH / 26 / NH2 / 29 / 31 / 104



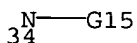
G11 = alkyl<(1-8)> / (SC Me / Et)  
 G12 = OH / 20



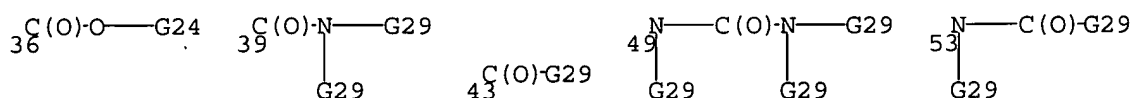
G13 = alkyl<(1-8)> / 55 / (SC Pr-i)



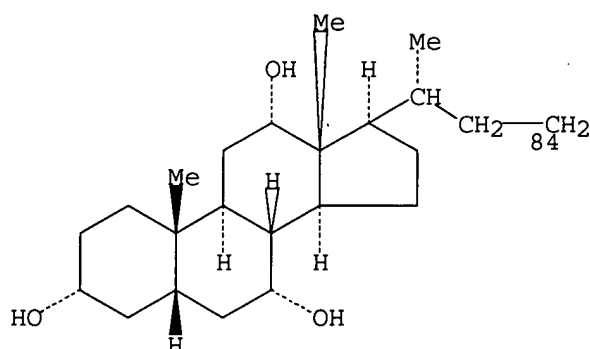
G14 = O / S / S(O) / SO2 / C(O) / NH / 34



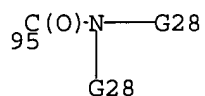
G15 = alkyl<(1-8)>  
 G16 = F / Cl / Br / I / CF3 / OCF3 / CN /  
 alkyl<(1-6)> (SO (1-) G17) / alkoxy<(1-6)> /  
 aryl (SO (1-) G18) / heteroaryl<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ> (SO (1-) G18) / CO2H / 36 / 39 / 43 / 49 / 53



- G17 = F / Cl / Br / I / OCF3 / CF3 / Ph  
 G18 = F / Cl / Br / I / OCF3 / CF3 / alkyl<(1-4)> /  
 alkoxy<(1-4)>  
 G19 = H / alkyl<(1-8)> / perfluoroalkyl<(1-8)>  
 G20 = H / R / (EX alkyl<(1-8)> / alkyl<(1-8)> (SR G23) /  
 aryl (SO) / heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ>  
 (SO))  
 G21 = R / (EX alkyl<(1-12)> / aryl (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ> (SO) /  
 alkyl<(1-8)> (SR aryl) / 84)

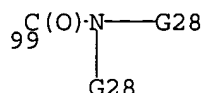


- G22 = R / (EX alkyl<(1-8)> / alkenyl<(2-8)> /  
 cycloalkyl<(5-7)> / alkyl<(1-8)> (SR G23) /  
 2-tetrahydropyranyl / alkyl<(1-8)> (SR cycloalkyl<(5-7)>))  
 G23 = aryl (SO) / heteroaryl<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ> (SO)  
 G24 = alkyl<(1-6)> / alkenyl<(2-6)> /  
 alkyl<(1-6)> (SR alkoxy<(1-6)>) / aryl (SO (1-2) G30) /  
 Hy<EC (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1),  
 RS (1) M4 (1) X8> (SO (1-2) G30) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (2),  
 RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0-) E8 (0) OTHER>  
 (SO (1-2) G30) / alkyl<(1-4)> (SR G25) /  
 alkyl<(1-4)> (SR G26) / alkyl<(1-4)> (SR OH) /  
 alkyl<(1-4)> (SR (1-) G27) / alkyl<(1-4)> (SR 95) /  
 cycloalkyl<(3-10)>



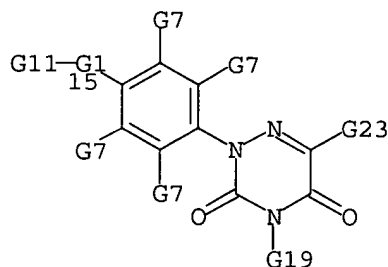
- G25 = aryl (SO (1-2) G30)  
 G26 = Hy<EC (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1), RS (1) M4 (1) X8> (SO (1-2) G30) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (2),  
 RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0-) E8 (0) OTHER>  
 (SO (1-2) G30)  
 G27 = F / Cl / Br / I

G28 = H / alkyl<(1-6)> / cycloalkyl<(3-10)> / aryl (SO) / heteroaryl (SO)  
 G29 = H / alkyl<(1-6)> / alkenyl<(2-6)> / alkyl<(1-6)> (SR alkoxy<(1-6)>) / aryl (SO (1-2) G30) / Hy<EC (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1), RS (1) M4 (1) X8> (SO (1-2) G30) / Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0-) E8 (0) OTHER> (SO (1-2) G30) / alkyl<(1-4)> (SR G25) / alkyl<(1-4)> (SR G26) / alkyl<(1-4)> (SR OH) / alkyl<(1-4)> (SR (1-) G27) / alkyl<(1-4)> (SR 99) / cycloalkyl<(3-10)>

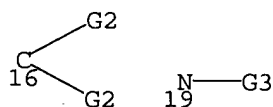


G30 = H / R  
 G31 = R<TX "pharmaceutically acceptable salt"> / (SC K / Na)  
 MPL: claim 4  
 NTE: or prodrugs  
 NTE: additional ring formation also claimed  
 STE: or geometric or optical isomers

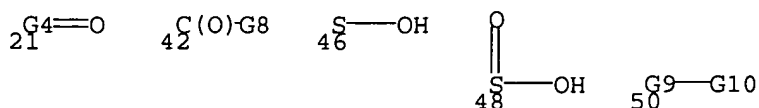
MSTR 3



G1 = O / S / S(O) / SO2 / NH / 19 / C(O) / CH=CH / 16 / CHO

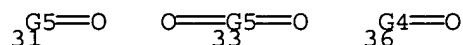


G2 = H / F  
 G3 = alkyl<(1-12)> (SO) / 21 / alkenyl<(2-6)> / cycloalkyl<(3-10)> / 42 / SH / 46 / 48 / 50

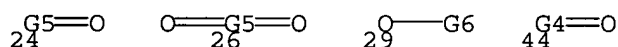




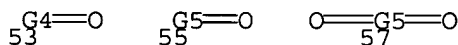
G4 = Ak<EC (1-12) C, BD (ALL) SE> (SO)  
 G5 = Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1-3)> (SO)  
 G6 = Ph (SO) / naphthyl (SO) / biphenyl (SO) /  
 Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-3)> (SO) / 31 / 33 / alkyl<(1-12)> (SO) / 36 /  
 alkenyl<(2-6)> / cycloalkyl<(3-10)>



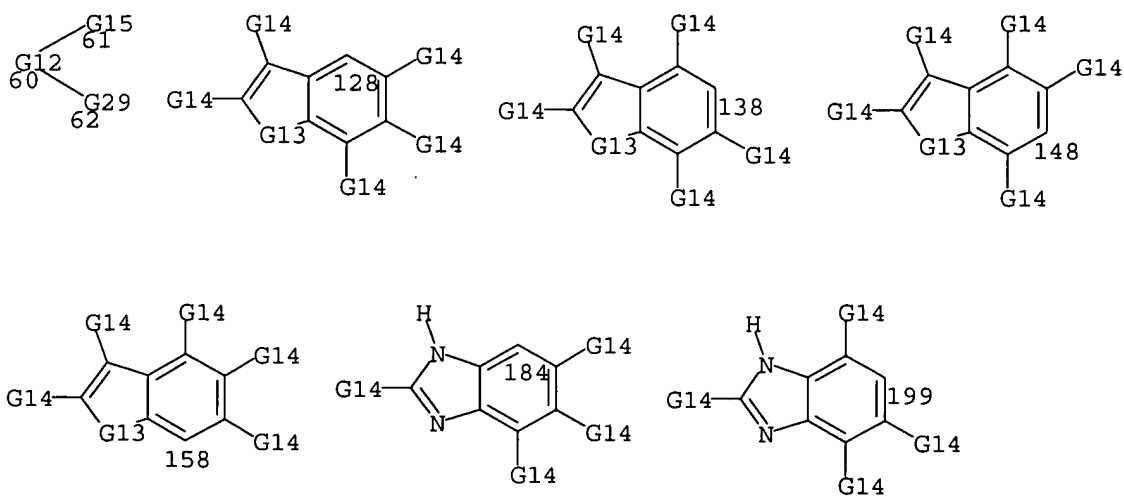
G7 = (2-) H / F / Cl / Br / I / alkyl<(1-6)> / CN / OH /  
 alkoxy<(1-6)> (SO (1-) F) / CF3 / (SC Me)  
 G8 = H / alkyl<(1-12)> (SO) / 44 / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
 biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, RC (1-3)> (SO) / 24 / 26 / 29

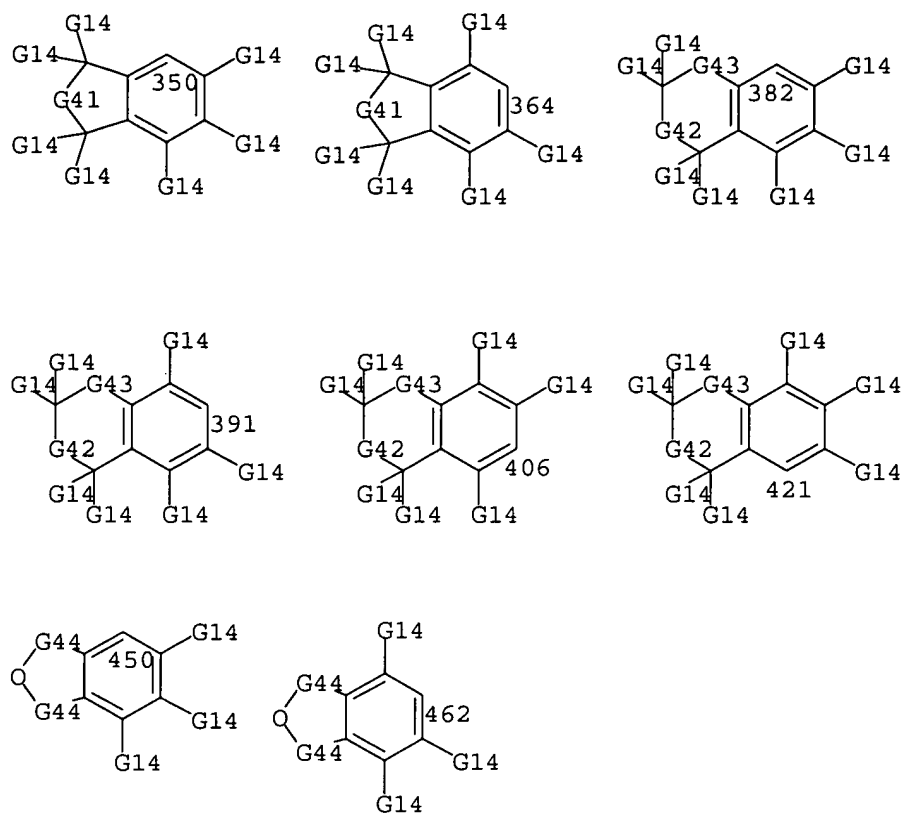


G9 = S / S(O) / SO2  
 G10 = alkyl<(1-12)> (SO) / 53 / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
 biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, RC (1-3)> (SO) / 55 / 57

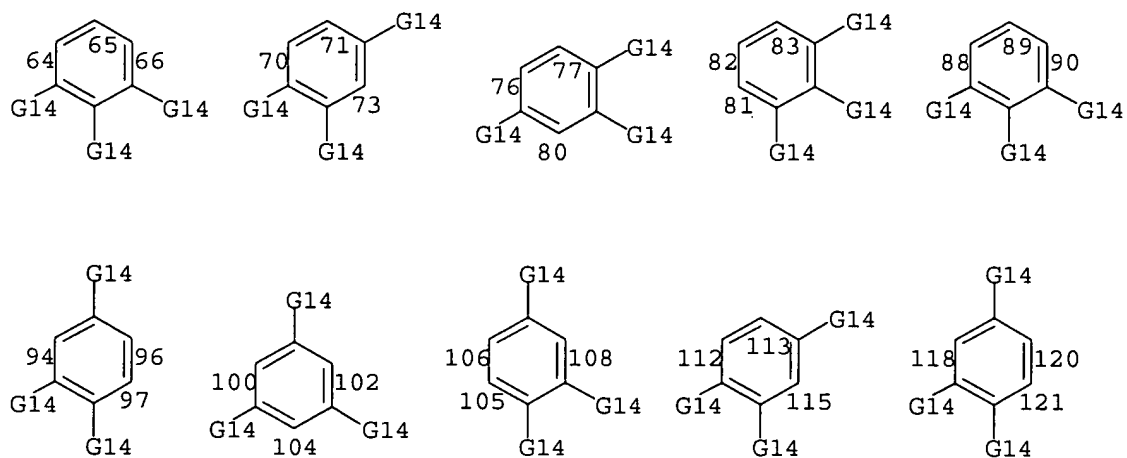


G11 = 60 / 128 / 138 / 148 / 158 / 184 / 199 / 350 / 364 /  
 382 / 391 / 406 / 421 / 450 / 462

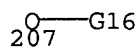




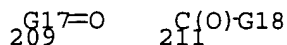
G12 = 64-15 65-61 66-62 / 70-15 71-61 73-62 /  
 76-15 77-61 80-62 / 82-15 83-61 81-62 / 88-15 90-61 89-62 /  
 94-15 96-61 97-62 / 100-15 102-61 104-62 /  
 106-15 108-61 105-62 / 112-15 115-61 113-62 /  
 118-15 121-61 120-62



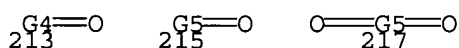
G13 = NH / O / S  
 G14 = H / R  
 G15 = OH / 207 / (SC OMe)



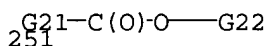
G16 = alkyl<(1-4)> (SO) / 209 / 211



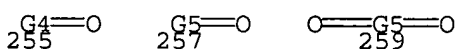
G17 = Ak<EC (1-4) C, BD (ALL) SE> (SO)  
 G18 = H / alkyl<(1-12)> (SO) / 213 / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
 biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, RC (1-3)> (SO) / 215 / 217



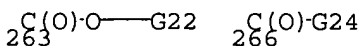
G19 = H / alkyl<(1-4)> (SO (1-) G20) / 251



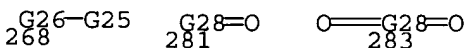
G20 = F / Cl / Br / I  
 G21 = (0-3) CH2  
 G22 = alkyl<(1-12)> (SO) / 255 / alkenyl<(2-12)> (SO Ph) /  
 alkenyl<EC (2-12) C, BD (2) D> / cycloalkyl<(3-10)> /  
 Ph (SO) / naphthyl (SO) / biphenyl (SO) /  
 Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-3)> (SO) / 257 / 259



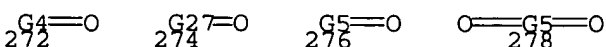
G23 = H / alkyl<(1-6)> / 263 / 266 / CN



G24 = 268 / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-) S (0)  
 OTHERQ, AN (1-) N, RC (1-3)> (SO) / 281 / 283



G25 = alkyl<(1-12)> (SO) / 272 / cycloalkyl<(3-10)> (SO) /  
 274 / alkenyl<(2-12)> / Hy<EC (4-8) A (1-4) Q (0-) N (0-)  
 O (0-) S (0) OTHERQ, RC (1-3)> (SO) / 276 / 278



G26 = NH / 270

$\text{N}-\text{G25}$   
270

G27 = Cb<EC (3-10) C, AR (0), BD (ALL) SE> (SO)  
G28 = Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-) S (0)  
OTHERQ, AN (1-) N, RC (1-3)> (SO)  
G29 = alkyl<(1-19)> (SO (1-) G30) / CHO /  
alkylcarbonyl<(1-6)> (SO (1-) F) / 293 / NH2 (SO) / 625 /  
540 / 301 / 313 / SH / 314 / 316 / 319 / 321 / Ph (SO) /  
naphthyl (SO) / biphenyl (SO) /  
Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
RC (1-3)> (SO) / 328 / 330 / 333 / 341 / F / Cl / Br / I

$\text{C}(\text{O})-\text{G31}-\text{G32}$     $\text{G33}-\text{C}(\text{O})-\text{G14}$     $\text{G36}-\text{G35}$     $\text{S}-\text{OH}$     $\text{O}$   
293   301   313 307   314    $\text{S}-\text{OH}$    316    $\text{G9}-\text{G52}$   
319

$\text{G33}-\text{G37}$     $\text{G5}=\text{O}$     $\text{O}=\text{G5}=\text{O}$     $\text{O}-\text{G31}-\text{G38}$     $\text{O}-\text{G39}$     $\text{C}(\text{O})-\text{G48}$   
321   328   330   333   341   540

$\text{G56}-\text{G57}$   
625

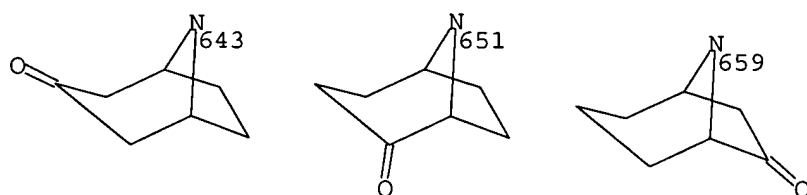
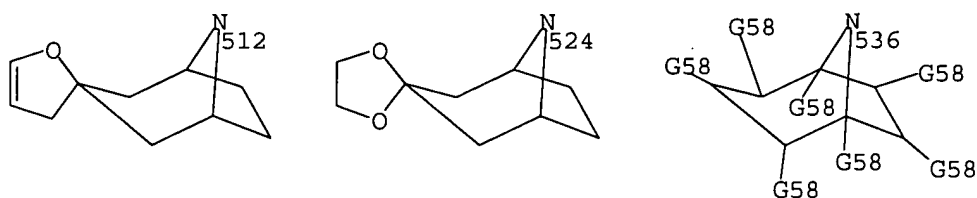
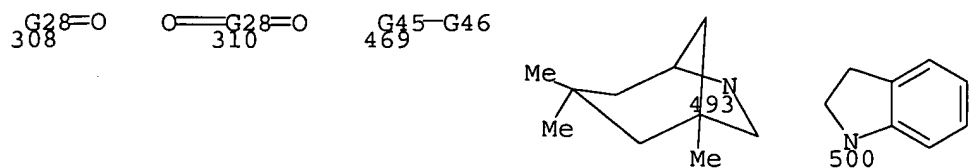
G30 = 286 / F / cycloalkyl<(3-10)> / Ph (SO) /  
naphthyl (SO) / biphenyl (SO) /  
Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
RC (1-3)> (SO) / 288 / 290

$\text{O}-\text{G6}$     $\text{G5}=\text{O}$     $\text{O}=\text{G5}=\text{O}$   
286   288   290

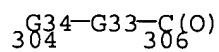
G31 = NULL / alkylene<(1-6)>  
G32 = cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
S (0) OTHERQ, RC (1-3)> (SO) / 296 / 298

$\text{G5}=\text{O}$     $\text{O}=\text{G5}=\text{O}$   
296   298

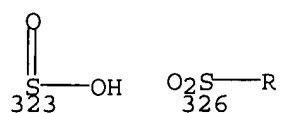
G33 = NH (SO)  
G34 = NULL / alkylene<(1-3)>  
G35 = NH2 (SO) / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-)  
S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO) / 308 / 310 /  
(SC 469 / piperidino (SO (1-) G47) / pyrrolidino / 493 /  
500 / 512 / 524 / 536 / 643 / 651 / 659)



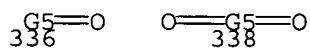
G36 = 304-60 306-307 / SO2



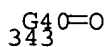
G37 = 323 / 326



G38 = Ph (SO) / naphthyl (SO) / biphenyl (SO) /  
 Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-3)> (SO) / 336 / 338



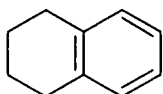
G39 = alkyl<(7-12)> (SO) / 343 /  
 alkyl<(1-6)> (SO (1-) F) / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)>



- G40 = Ak<EC (7-12) C, BD (ALL) SE> (SO)  
 G41 = (1-5) CH2 (SO)  
 G42 = (0-4) CH2 (SO)  
 G43 = O / S / NH (SO)  
 G44 = (2-6) CH2 (SO)  
 G45 = NH / NMe  
 G46 = alkyl<(5-8)> / 472 / 484 / cyclobutyl /  
 cyclopentyl / cyclohexyl / Ph (SO (1-) F)

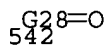


472

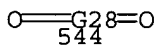


484

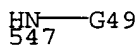
- G47 = Me / Ph  
 G48 = NH2 (SO) / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-)  
 S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO) / 542 / 544 /  
 (SC 547 / piperidino (SO (1-) G47) / pyrrolidino /  
 hexahydroazepino / 584)



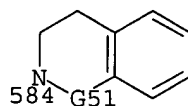
542



544

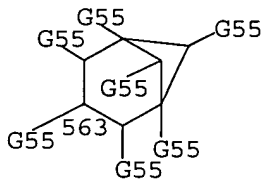
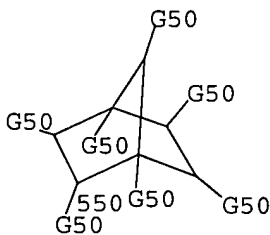


547

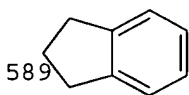


584 G51

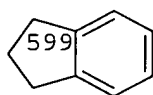
- G49 = cyclopentyl (SO (1-) CH2OH) / 550 / 563



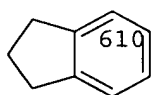
- G50 = H / CH2OH / Me  
 G51 = (0-1) CH2  
 G52 = R / (SC Ph (SO (1-) G53) / 589 / 599 / 610 / 620 /  
 623)



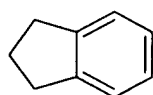
589



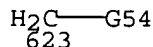
599



610

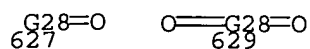


620



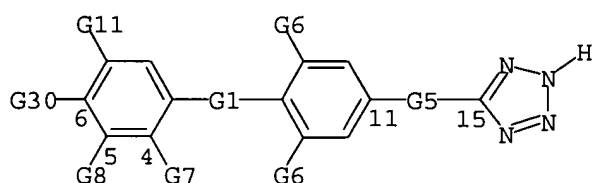
623

- G53 = Me / Et  
 G54 = cycloalkyl<(4-6)>  
 G55 = H / Me  
 G56 = alkylene<(1-3)>  
 G57 = NH2 (SO) / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-)  
 S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO) / 627 / 629

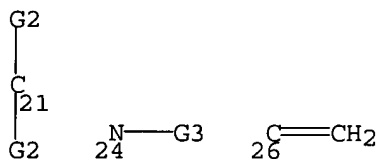


G58 = H / OH  
 MPL: claim 4  
 NTE: or pharmaceutically acceptable salts or prodrugs  
 NTE: additional ring formation also claimed  
 NTE: substitution is restricted  
 STE: and isomers

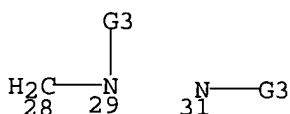
MSTR 4



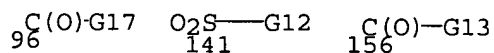
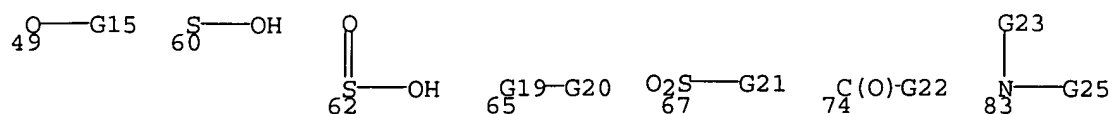
G1 = O / S / S(O) / SO2 / 21 / C(O) / CHOH / 24 / 26



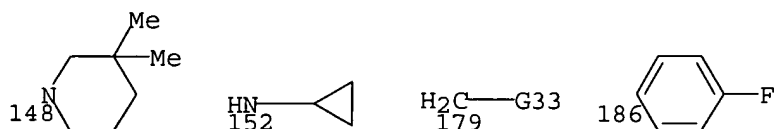
G2 = H / F  
 G3 = H / alkyl<(1-6)> (SO G4)  
 G4 = cycloalkyl<(3-6)> / OMe  
 G5 = O / CH2 / CH2CH2 / S / S(O) / SO2 / 28-11 29-15 / 31 / NULL



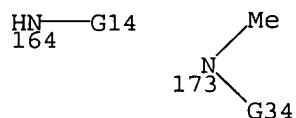
G6 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 / alkoxy<(1-8)> / CN / (SC Me)  
 G7 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 / alkoxy<(1-8)> / CN  
 G8 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> / alkynyl<(2-12)> / F / Cl / Br / I / CN / OH / 49 / SH / 60 / 62 / 65 / aryl / heteroaryl<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> / Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0), BD (ALL) SE> / 67 / 74 / 83 / 96 / (SC Ph (SO) / naphthyl (SO) / Pr-i / 141 / 156)



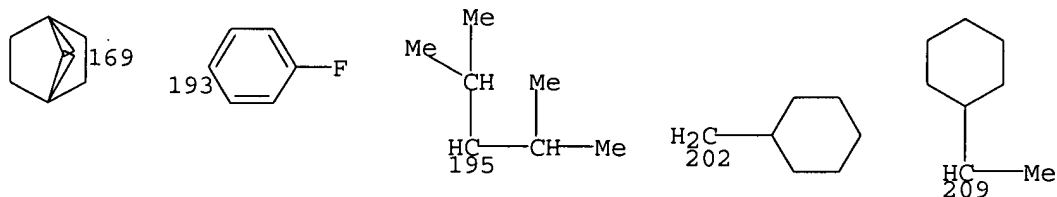
G11 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 /  
 alkoxy<(1-8)> / CN  
 G12 = pyrrolidino / piperidino / 148 / 152 / NMe2 / 179 /  
 186



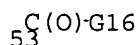
G13 = piperidino / 164 / pyrrolidino / 173



G14 = cyclobutyl / cyclohexyl / 169 / Me / Bu-n / Pr-i /  
 heptyl / nonyl / 193 / cyclopentyl / cycloheptyl /  
 cyclooctyl / 195 / 202 / 209



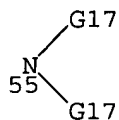
G15 = alkyl<(1-12)> (SO) / aryl /  
 heteroaryl<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ> /  
 cycloalkyl<(3-10)> / Hy<EC (0-) O (0-) N (0-) S (0-) P (0)  
 OTHERQ, AR (0), BD (ALL) SE> / 53



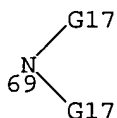
G16 = 55 / Hy<EC (3-10) A (1-) N (0-) O (0-) S (0)  
 OTHERQ, AN (1-) N> (SO) / H / alkyl<(1-10)> (SO) /  
 alkenyl<(2-10)> / alkoxy<(2-10)> / cycloalkyl<(3-10)> /  
 Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
 BD (ALL) SE> / aryl / heteroaryl<EC (0-) O (0-) N (0-) S (0-)



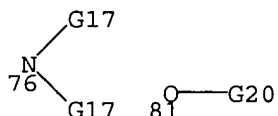
P (0) OTHERQ&gt;



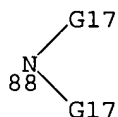
G17 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> (SO) /  
 alkynyl<(2-12)> / aryl / heteroaryl<EC (0-) O (0-) N (0-)  
 S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> /  
 Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, BD (ALL) SE>  
 G19 = S / S(O) / SO2  
 G20 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 alkynyl<(2-12)> / aryl / heteroaryl<EC (0-) O (0-) N (0-)  
 S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> /  
 Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
 BD (ALL) SE>  
 G21 = 69 / Hy<EC (1-) N (0-) O (0-) S (0) OTHERQ,  
 AN (1-) N> (SO)



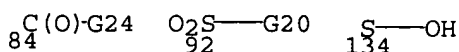
G22 = 76 / Hy<EC (1-) N (0-) O (0-) S (0) OTHERQ,  
 AN (1-) N> (SO) / 81 / OH



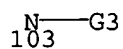
G23 = H / alkyl<(1-6)> (SO (1-) G4)  
 G24 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 alkynyl<(2-12)> / aryl / heteroaryl<EC (0-) O (0-) N (0-)  
 S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> /  
 Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
 BD (ALL) SE> / 88 / Hy<EC (1-) N (0-) O (0-) S (0) OTHERQ,  
 AN (1-) N> (SO)



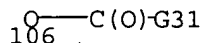
G25 = 84 / 92 / 134 / H / alkyl<(1-12)> (SO) /  
 alkenyl<(2-12)> / alkynyl<(2-12)> / aryl /  
 heteroaryl<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ> /  
 cycloalkyl<(3-10)> / Hy<EC (0-) O (0-) N (0-) S (0-) P (0)  
 OTHERQ, AR (0), BD (ALL) SE>



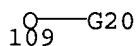
G26 = (3-7) CH<sub>2</sub> (SO)  
 G27 = O / S / 103



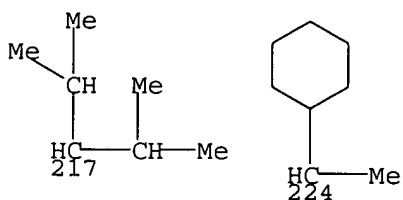
G28 = (2-6) CH<sub>2</sub> (SO)  
 G29 = (1-5) CH<sub>2</sub> (SO)  
 G30 = OH / alkoxy<(1-6)> / 106 / F



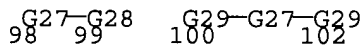
G31 = H / alkyl<(1-10)> (SO) / alkenyl<(2-10)> /  
 alkoxy<(2-10)> / cycloalkyl<(3-10)> /  
 Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
 BD (ALL) SE> / aryl / heteroaryl<EC (0-) O (0-) N (0-) S (0-)  
 P (0) OTHERQ> / OH / 109



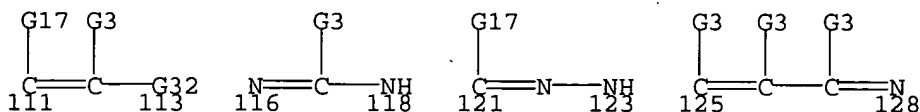
G32 = NH / O / S  
 G33 = cyclopropyl / cyclobutyl / cyclopentyl / cyclohexyl  
 G34 = cyclobutyl / cyclopentyl / cyclohexyl /  
 cycloheptyl / cyclooctyl / 217 / 224



G7 +G8 = G26 / 98-4 99-5 / 100-4 102-5



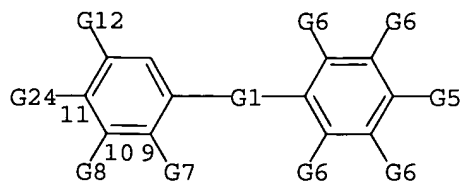
G8 +G30= 111-5 113-6 / 116-5 118-6 / 121-5 123-6 /  
 125-5 128-6



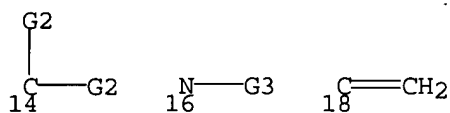
MPL: claim 4  
 NTE: pharmaceutically acceptable salts or prodrugs  
 NTE: substitution is restricted  
 NTE: additional oxo substitution also disclosed

STE: stereoisomers

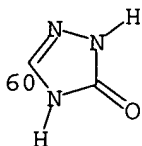
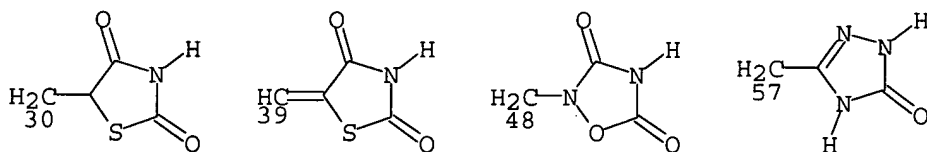
## MSTR 5



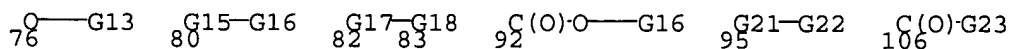
G1 = O / S / S(O) / SO<sub>2</sub> / 14 / C(O) / CHOH / NH / 16 / 18

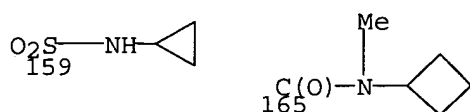


G2 = H / F  
 G3 = alkyl<(1-6)> (SO (1) G4)  
 G4 = cycloalkyl<(3-6)> / OMe  
 G5 = 30 / 39 / 48 / 57 / 60



G6 = (2-) H / F / Cl / Br / I / alkyl<(1-8)> / CF<sub>3</sub> / OCF<sub>3</sub> / alkoxy<(1-8)> / CN / (SC Me)  
 G7 = H / F / Cl / Br / I / alkyl<(1-8)> / CF<sub>3</sub> / OCF<sub>3</sub> / alkoxy<(1-8)> / CN  
 G8 = H / alkyl<(1-8)> (SO) / alkenyl<(2-12)> / alkynyl<(2-12)> / F / Cl / Br / I / CN / OH / 76 / 82 / 80 / Ph (SO) / naphthyl (SO) / heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) / Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, AR (0), BD (0-) D, RC (1-2)> (SO) / CO<sub>2</sub>H / 92 / 95 / 106 / (SC Pr-i / 159 / 165)





G9 = (3-6) CH<sub>2</sub> (SO)  
 G10 = (0-5) CH<sub>2</sub> (SO)  
 G11 = O / S  
 G12 = H / F / Cl / Br / I / alkyl<(1-8)> / CF<sub>3</sub> / OCF<sub>3</sub> /  
 alkoxy<(1-8)> / CN  
 G13 = alkyl<(1-12)> (SO) / Ph (SO) / naphthyl (SO) /  
 heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
 Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 AR (0), BD (0-) D, RC (1-2)> (SO) / 78

<sup>78</sup>C(=O)-G14

G14 = alkyl<(1-10)> (SO) / alkenyl<(2-12)> /  
 alkynyl<(2-10)> / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
 Ph (SO) / naphthyl (SO) / heteroaryl<EC (1-3) Q (0-) N (0-)  
 O (0-) S (0) OTHERQ, RC (1-2)> (SO) /  
 Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 AR (0), BD (0-) D, RC (1-2)> (SO)  
 G15 = S / S(O) / SO<sub>2</sub>  
 G16 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 alkynyl<(2-12)> / Ph (SO) / naphthyl (SO) /  
 heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
 Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 AR (0), BD (0-) D, RC (1-2)> (SO)  
 G17 = 84-10 85-83 / SO<sub>2</sub> / C(O)

<sup>84</sup>G20-C(=O)  
<sup>85</sup>

G18 = NH<sub>2</sub> / 86 / Hy<EC (3-10) A (1-2) Q (1-) N (0-) O (0-)  
 S (0) OTHERQ, AN (1-) N> (SO)

<sup>86</sup>G19-G16

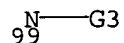
G19 = NH / 88

<sup>88</sup>N-G16

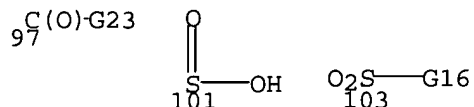
G20 = O / NH / 90

<sup>90</sup>N-G3

G21 = NH / 99

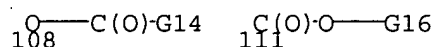


G22 = 97 / 101 / 103



G23 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / Ph (SO) / naphthyl (SO) /  
heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
AR (0), BD (0-) D, RC (1-2)> (SO)

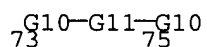
G24 = OH / alkoxy<(1-6)> / 108 / F / CO<sub>2</sub>H / 111 / (SC OMe)



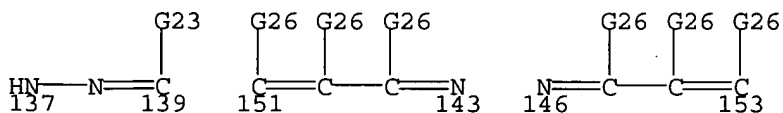
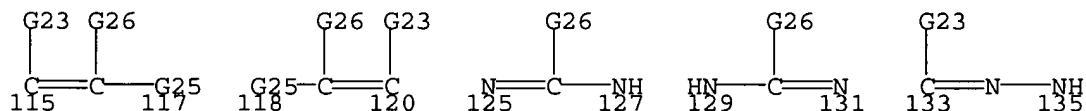
G25 = NH / O / S

G26 = H / alkyl<(1-6)> (SO (1) G4)

G7 +G8 = G9 / 73-9 75-10



G8 +G24= 115-10 117-11 / 118-10 120-11 / 125-10 127-11 /  
129-10 131-11 / 133-10 135-11 / 137-10 139-11 /  
151-10 143-11 / 146-10 153-11



MPL: claim 4

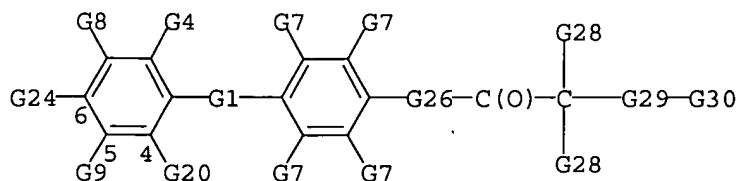
NTE: and prodrugs and pharmaceutically acceptable salts

NTE: substitution is restricted

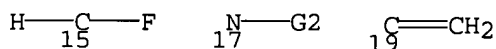
NTE: additional oxo substitution also claimed

STE: and stereoisomers

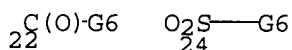
MSTR 6



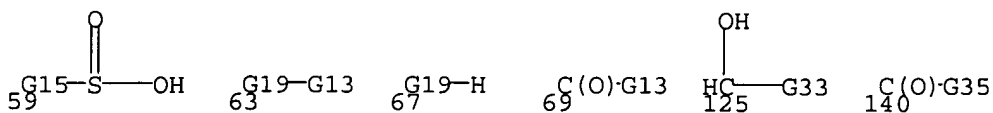
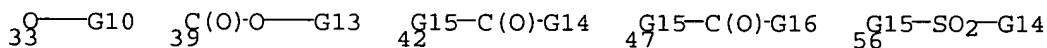
G1 = O / S / S(O) / SO<sub>2</sub> / CH<sub>2</sub> / CF<sub>2</sub> / 15 / C(O) / CHOH /  
NH / 17 / 19

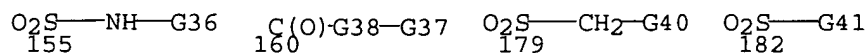


G2 = alkyl<(1-6)> (SO G3)  
G3 = Cb<EC (3-6) C, AR (0), BD (0-) D (0-) T> (SO) / OMe  
G4 = H / alkyl<(1-6)> (SO (1) G5) / 22 / 24 / F / Cl /  
Br / I

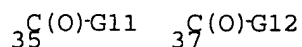


G5 = Cb<EC (3-6) C, AR (0), BD (0-) D (0-) T> (SO) /  
Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
AR (0), RC (1-2)> (SO) / Ph (SO)  
G6 = alkyl<(1-6)> (SO (1) G5) / Ph (SO) /  
Cb<EC (3-6) C, AR (0), BD (0-) D (0-) T> (SO) /  
Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
AR (0), RC (1-2)> (SO)  
G7 = (2-) H / F / Cl / Br / I / alkyl<(1-8)> / CF<sub>3</sub> /  
OCF<sub>3</sub> / alkoxy<(1-8)> / CN / (SC Me)  
G8 = H / F / Cl / Br / I / alkyl<(1-8)> / CF<sub>3</sub> / OCF<sub>3</sub> /  
alkoxy<(1-8)> / CN  
G9 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / F / Cl / Br / I / CN / OH / 33 /  
aryl (SO) / heteroaryl (SO) / Cb<EC (3-10) C, AR (0),  
BD (0-) D (0-) T> (SO) / Hy<EC (4-10) A (1-3) Q (0-) O (0-)  
N (0-) S (0) OTHERQ, AR (0), RC (1-2)> (SO) / CO<sub>2</sub>H / 39 /  
42 / 47 / 56 / 59 / NH<sub>2</sub> / 63 / 67 / CHO / 69 / (SC 125 /  
140 / 155 / 160 / 179 / 182)

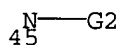




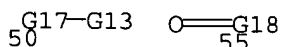
G10 = alkyl<(1-12)> (SO) / aryl (SO) / heteroaryl (SO) /  
Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T> (SO) /  
Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
AR (0), RC (1-2)> (SO) / 35 / 37



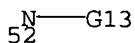
G11 = NH2 (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T>  
(SO) / aryl (SO) / heteroaryl (SO) /  
Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
AR (0), RC (1-2)> (SO)  
G12 = alkyl<(1-10)> (SO) / alkenyl<(2-10)> /  
alkynyl<(2-10)>  
G13 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / aryl (SO) / heteroaryl (SO) /  
Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T> (SO) /  
Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
AR (0), RC (1-2)> (SO)  
G14 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / aryl (SO) / heteroaryl (SO) /  
Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T> (SO) /  
Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
AR (0), RC (1-2)> (SO)  
G15 = NH / 45



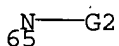
G16 = NH2 / 50 / Hy<EC (3-10) A (1-2) Q (1-) N (0-) O (0-)  
S (0) OTHERQ, AN (1-) N> (SO) / 55



G17 = NH / 52

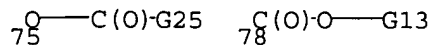


G18 = Hy<EC (3-10) A (1-2) Q (1-) N (0-) O (0-) S (0)  
OTHERQ, AN (1-) N> (SO)  
G19 = NH / 65

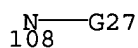


G20 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 /  
alkoxy<(1-8)> / CN

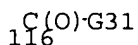
G21 = (3-6) CH2  
 G22 = (0-5) CH2  
 G23 = O / S / NH (SO)  
 G24 = OH / alkoxy<(1-6)> / 75 / F / CO2H / 78



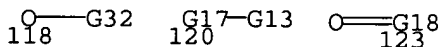
G25 = alkyl<(1-10)> (SO) / alkenyl<(2-10)> /  
 alkynyl<(2-10)> / Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T>  
 (SO) / aryl (SO) / heteroaryl (SO) /  
 Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
 AR (0), RC (1-2)> (SO)  
 G26 = NH / 108



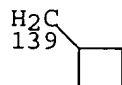
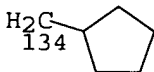
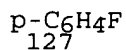
G27 = alkyl<(1-8)> / (SC Me)  
 G28 = H / alkyl<(1-6)> / R / (SC Me)  
 G29 = NULL / CH2  
 G30 = OH / 116



G31 = OH / 118 / NH2 / 120 /  
 Hy<EC (3-10) A (1-2) Q (1-) N (0-) O (0-) S (0) OTHERQ,  
 AN (1-) N> (SO) / 123 / (SC OMe / OEt)

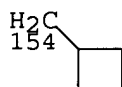
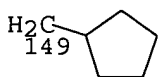


G32 = alkyl<(1-10)> (SO) / alkenyl<(2-10)> /  
 alkynyl<(2-10)> / Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T>  
 (SO) / aryl (SO) / heteroaryl (SO) /  
 Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
 AR (0), RC (1-2)> (SO)  
 G33 = aryl (SO) / heteroaryl (SO) /  
 Cb<EC (3-8) C, AR (0), BD (0-) D (0-) T> (SO) /  
 alkyl<(1-2)> (SR G34) / Hy<EC (4-10) A (1-3) Q (0-) O (0-)  
 N (0-) S (0) OTHERQ, AR (0), RC (1-2)> (SO) / (SC 127 / 134 /  
 139 / cyclopentyl / cyclobutyl)



G34 = Cb<EC (3-8) C, AR (0), BD (0-) D (0-) T> (SO) /  
 Hy<EC (4-10) A (1-3) Q (0-) O (0-) N (0-) S (0) OTHERQ,  
 AR (0), RC (1-2)> (SO)  
 G35 = 142 / 149 / 154 / cyclobutyl / cyclopentyl

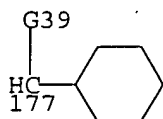
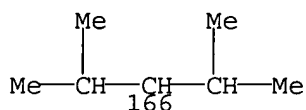


p-C<sub>6</sub>H<sub>4</sub>F  
142

G36 = cyclopropyl / cyclobutyl / cyclopentyl /  
cyclohexyl / alkyl<(1-8)> / Ph (SO F) / Pr-i / Bu-n /  
heptyl / 158

p-C<sub>6</sub>H<sub>4</sub>F  
158

G37 = Cb<EC (3-8) C, AR (0), BD (0-) D (0-) T> (SO) /  
166 / Pr-i / 177 / Ph (SO F) / cyclobutyl / cyclopentyl /  
cyclohexyl / cycloheptyl



G38 = NH / NMe

G39 = H / Me

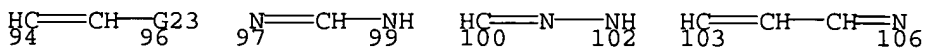
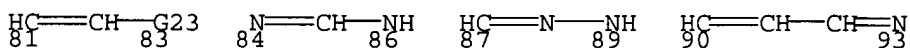
G40 = cyclopropyl / cyclobutyl / cyclopentyl / cyclohexyl

G41 = cyclopentyl / cyclohexyl

G9 +G20= G21 / 71-5 73-4

G22-G23-G22  
71 73

G9 +G24= 81-5 83-6 / 84-5 86-6 / 87-5 89-6 / 90-5 93-6 /  
96-5 94-6 / 99-5 97-6 / 102-5 100-6 / 106-5 103-6

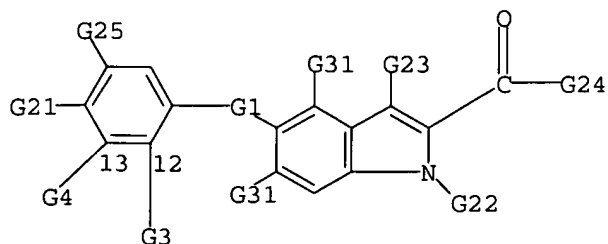


MPL: claim 4

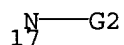
NTE: or prodrugs or pharmaceutically acceptable salts

STE: or isomers

MSTR 7



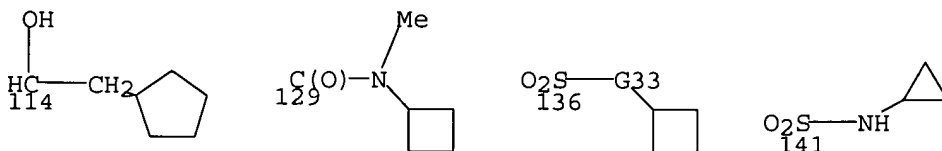
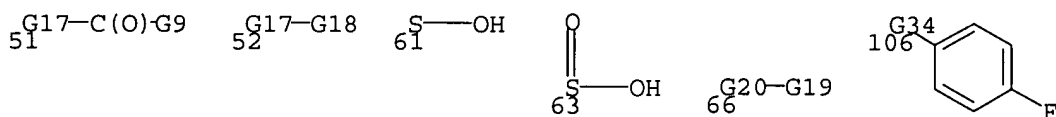
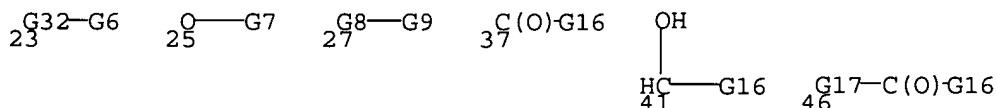
G1 = O / CH<sub>2</sub> / CF<sub>2</sub> / NH / 17 / S / S(O) / SO<sub>2</sub>

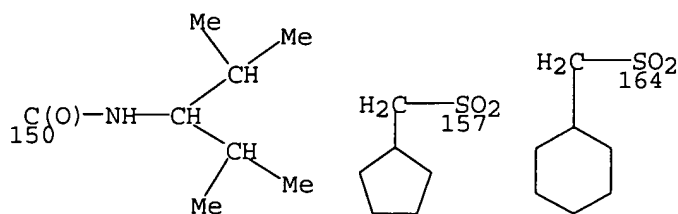


G2 = alkyl<(1-6)> (SO)

G3 = H / F / Cl / Br / I / CN / CF<sub>3</sub> / OCF<sub>3</sub> /  
alkyl<(1-6)> (SO) / (SC Me)

G4 = H / F / Cl / Br / I / CN / alkyl<(1-12)> (SO) /  
alkenyl<(2-12)> (SO) / alkynyl<(2-12)> (SO) /  
Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T> (SO) / 23 /  
aryl<(6-10)> (SO) / heteroaryl<EC (0-) N (0-) O (0-) S (0-)  
P (0) OTHERQ (2-9) C> (SO) / Hy<EC (0-) N (0-) O (0-) S (0-)  
P (0) OTHERQ (2-9) C, AR (0), BD (0-) D (0-) T> (SO) / OH /  
25 / 27 / 37 / 41 / 46 / 51 / 52 / SH / 61 / 63 / 66 /  
(SC 106 / 114 / 129 / 136 / 141 / 150 / 157 / 164 / Me)





- G5 = alkylene<(1-6)> (SO)  
 G6 = Cb<EC (3-10) C, AR (0), BD (0-) D (0-) T> (SO) /  
 aryl<(6-10)> (SO) / heteroaryl<EC (0-) N (0-) O (0-) S (0-)  
 P (0) OTHERQ (2-9) C> (SO) / Hy<EC (0-) N (0-) O (0-) S (0-)  
 P (0) OTHERQ (2-9) C, AR (0), BD (0-) D (0-) T> (SO)  
 G7 = alkyl<(1-12)> (SO) / Cb<EC (3-10) C, AR (0),  
 BD (0-) D (0-) T> (SO) / aryl<(6-10)> (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0-) P (0) OTHERQ (2-9) C>  
 (SO) / Hy<EC (0-) N (0-) O (0-) S (0-) P (0) OTHERQ (2-9) C,  
 AR (0), BD (0-) D (0-) T> (SO)  
 G8 = C(O) / SO2  
 G9 = NH2 / 29 / Hy<EC (3-10) A (1-2) Q (1-2) N (0-1)  
 O (0-1) S (0) OTHERQ, AN (1-) N> (SO G14)

<sup>G10-G11</sup>  
 29

G10 = NH / 31

<sup>N-G12</sup>  
 31

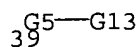
- G11 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> (SO) /  
 alkynyl<(2-12)> (SO) / Cb<EC (3-10) C, AR (0),  
 BD (0-) D (0-) T> (SO) / 35 / aryl<(6-10)> (SO (1-) G15) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0-) P (0) OTHERQ (2-9) C>  
 (SO)

<sup>G5-G13</sup>  
 35

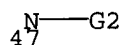
- G12 = alkyl<(1-6)> (SO) / Cb<EC (3-10) C, AR (0),  
 BD (0-) D (0-) T> (SO) / 33

<sup>G5-G13</sup>  
 33

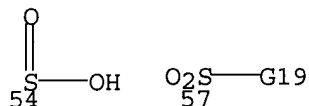
- G13 = Cb<EC (3-9) C, AR (0), BD (0-) D (0-) T> (SO)  
 G14 = R / alkyl<(1-6)> (SO)  
 G15 = R / F / Cl / Br / I  
 G16 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> (SO) /  
 alkynyl<(2-12)> (SO) / Cb<EC (3-10) C, AR (0),  
 BD (0-) D (0-) T> (SO) / 39 / aryl<(6-10)> (SO (1-) G15) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0-) P (0) OTHERQ (2-9) C>  
 (SO)



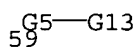
G17 = NH / 47



G18 = 54 / 57

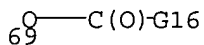


G19 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> (SO) /  
alkynyl<(2-12)> (SO) / Cb<EC (3-10) C, AR (0),  
BD (0-) D (0-) T> (SO) / 59 / aryl<(6-10)> (SO (1-) G15) /  
heteroaryl<EC (0-) N (0-) O (0-) S (0-) P (0) OTHERQ (2-9) C>  
(SO)



G20 = S / S(O) / SO2

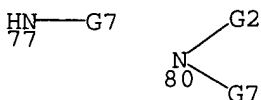
G21 = OH / F / alkoxy<(1-4)> (SO) / 69



G22 = H / COMe / alkyl<(1-6)> (SO) / (SC Me)

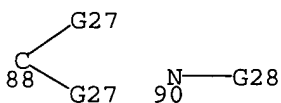
G23 = H / alkyl<(1-6)> (SO) / (SC Me)

G24 = OH / alkoxy<(1-6)> (SO) / NH2 / 77 / 80



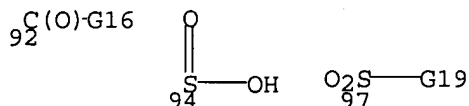
G25 = H / F / Cl / Br / I / alkyl<(1-6)> (SO) / (SC Me /  
Pr-i / Bu-s)

G26 = 88 / 90 / O / S



G27 = H / alkyl<(1-6)> (SO)

G28 = H / alkyl<(1-6)> (SO) / 92 / 94 / 97



G29 = R<TX "group to form ring"> / NULL  
 G31 = H / F / Cl / Br / I / CN / CF3 / OCF3 /  
       alkyl<(1-6)> (SO) / (SC Me)  
 G32 = alkylene<(1-6)> (SO) / (SC CH2)  
 G33 = CH2 / NH  
 G34 = CHOH / C(O) / SO2 / CH2  
 G3 +G4 = 86-12 83-13 / (SC CH2CH2CH2CH2)

~~G26-G29-G26-G26~~  
 83 86

MPL: claim 4  
 NTE: or pharmaceutically acceptable salts

L28 ANSWER 4 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
 AN 139:276885 MARPAT  
 TI Preparation of novel heterocyclic analogs of diphenylethylene compounds as  
       antidiabetics  
 IN Neogi, Partha; Dey, Debendranath; Medicherla, Satyanarayana; Nag,  
       Bishwajit; Lee, Arthur  
 PA USA  
 SO U.S. Pat. Appl. Publ., 66 pp., Cont.-in-part of U.S. Ser. No. 843,167.  
       CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM A61K031-426  
       ICS A61K031-421; A61K031-4168; A61K031-381; A61K031-365; C07D339-02;  
           C07D263-44; C07D277-14  
 NCL 514369000  
 CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))  
       Section cross-reference(s): 1, 63  
 FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003181494	A1	20030925	US 2002-265902	20021008
	US 2002025975	A1	20020228	US 2001-785554	20010220
	US 2002032225	A1	20020314	US 2001-843167	20010427
	WO 2004033438	A1	20040422	WO 2003-US31803	20031008
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,				
	GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,				
	LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,				
	OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,				
	TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,				
	KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,				
	FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,				
	BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 1999-287237		19990406		
	US 2000-591105		20000609		
	US 2001-785554		20010220		

US 2001-843167 20010427  
 US 1998-74925 19980508  
 US 2002-265902 20021008

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

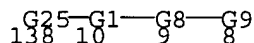
- AB The title compds. [I; Z = II-IV; n, m, q and r = 0-4 ( $n+m \leq 4$  and  $q+r \leq 4$ ); p, s = 0-5 ( $p+s \leq 5$ ); R, R2 = H, alkyl, alkenyl, etc.; R1 = H, alkyl, alkenyl, etc.; A, A1, A2 = H, acylamino, acyloxy, alkanoyl, etc.; B, B1, B2 = H, acylamino, acyloxy, alkanoyl, etc.; or A and B together, or A1 and B1 together, or A2 and B2 together, may be joined to form a methylenedioxy or ethylenedioxy; X, X1 = (un)substituted NH, O, S] which are effective in lowering blood glucose level, serum insulin, triglyceride and free fatty acid levels in animal models of Type II diabetes, were prepared E.g., a multi-step synthesis of V, starting from 3,5-dimethoxybenzaldehyde and 4-hydroxyphenylacetic acid, was given. The compound V showed strong glucose lowering activity even though it is a weak PPAR- $\gamma$  agonist (data given). The compds. I are disclosed as useful for a variety of treatments including the treatment of inflammation, inflammatory and immunol. diseases, insulin resistance, hyperlipidemia, coronary artery disease, cancer and multiple sclerosis. Pharmaceutical composition comprising the compound I was claimed.
- ST heterocyclic analog diphenylethylene prepn antidiabetic cytokine cyclooxygenase inhibitor; thiazolidinedione oxazolidinedione diphenylethylene prepn antiinflammatory immunomodulator hypolipemic antitumor; insulin resistance thiazolidinedione oxazolidinedione diphenylethylene prepn; multiple sclerosis thiazolidinedione oxazolidinedione diphenylethylene prepn
- IT Apolipoproteins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (A-I, co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Proteins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bile acid-binding, co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Sulfonylureas  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (co-drug; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Immunosuppressants  
 Narcotics  
 (co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Corticosteroids, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione

- or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Artery, disease  
(coronary, treatment of; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Cytokines  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(cytokines inhibitors as co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Antirheumatic agents  
(disease-modifying, co-drugs; preparation of diphenylethylene compds. containing  
thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Immunity  
(disorder, treatment of; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Lipids, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hyperlipidemia, resistance, treatment of; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Anti-inflammatory agents  
(nonsteroidal, co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Interleukin 1  
Interleukin 6  
Tumor necrosis factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for inhibiting activity of TNF- $\alpha$ , IL-1, IL-6 or COX-2)
- IT Anti-inflammatory agents  
Antidiabetic agents  
Antitumor agents  
Cardiovascular agents  
Human  
Hypolipemic agents  
Immunomodulators  
(preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Diabetes mellitus  
Inflammation  
Multiple sclerosis  
Neoplasm  
(treatment of; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Peroxisome proliferator-activated receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
( $\alpha$ , PPAR- $\alpha$  agonists as co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for

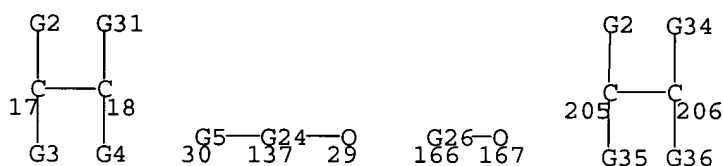
- treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT Peroxisome proliferator-activated receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
( $\gamma$ , PPAR- $\gamma$  agonists as co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT 329900-75-6, COX-2  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(COX-2; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for inhibiting activity of TNF- $\alpha$ , IL-1, IL-6 or COX-2)
- IT 59-67-6, Niacin, biological studies 23288-49-5, Probucol  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(co-drug; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT 56-03-1D, Biguanide, derivs.  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT 9028-35-7  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(inhibitors, statins, co-drugs; preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT 380881-51-6P 606932-84-7P 606932-88-1P 606932-92-7P 606932-93-8P  
606932-96-1P 606932-97-2P 606932-99-4P 606933-02-2P  
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT 380881-49-2P 380881-53-8P 380881-55-0P 606932-68-7P 606932-69-8P  
606932-70-1P 606932-71-2P 606932-72-3P 606932-73-4P 606932-74-5P  
606932-75-6P 606932-76-7P 606932-77-8P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)
- IT 104-87-0, 4-Methylbenzaldehyde 110-91-8, Morpholine, reactions  
123-08-0, 4-Hydroxybenzaldehyde 156-38-7, 4-Hydroxyphenylacetic acid  
459-57-4, 4-Fluorobenzaldehyde 499-06-9, 3,5-Dimethylbenzoic acid  
696-62-8, 4-Iodoanisole 2295-31-0, 2,4-Thiazolidinedione 3462-97-3,  
4-Methoxybenzyltriphenylphosphonium chloride 7311-34-4,  
3,5-Dimethoxybenzaldehyde 24131-30-4, 3,5-Dimethoxybenzyltriphenylphosphonium bromide 87199-18-6, 3-Hydroxyphenylboronic acid 606933-03-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or



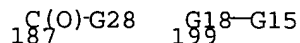
immunol. disease in combination with other agents)  
 IT 5779-95-3P 33104-27-7P 74772-78-4P 116518-98-0P 154052-92-3P  
 353227-95-9P 380881-43-6P 380881-45-8P 606932-78-9P 606932-79-0P  
 606932-80-3P 606932-81-4P 606932-82-5P 606932-83-6P 606932-85-8P  
 606932-86-9P 606932-87-0P 606932-89-2P 606932-90-5P 606932-91-6P  
 606932-94-9P 606932-95-0P 606932-98-3P 606933-00-0P 606933-01-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of diphenylethylene compds. containing thiazolidinedione or  
 oxazolidinedione moieties for treating diabetes, inflammatory or  
 immunol. disease in combination with other agents)  
 IT 9004-10-8, Insulin, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (resistance, treatment of; preparation of diphenylethylene compds.  
 containing  
 thiazolidinedione or oxazolidinedione moieties for treating diabetes,  
 inflammatory or immunol. disease in combination with other agents)  
 IT 9001-42-7,  $\alpha$ -Glucosidase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 ( $\alpha$ -glucosidase inhibitors as co-drugs; preparation of diphenylethylene  
 compds. containing thiazolidinedione or oxazolidinedione moieties for  
 treating diabetes, inflammatory or immunol. disease in combination with  
 other agents)

**MSTR 1**

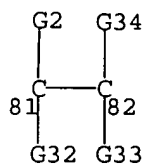
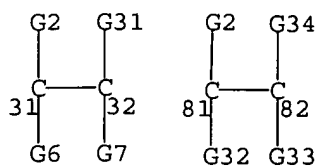
G1 = 17-138 18-9 / 205-138 206-9 / 30-138 29-9 /  
 166-138 167-9



G2 = H / Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / 187 /  
 NH2 / 199 / OH / F / Cl / Br / I



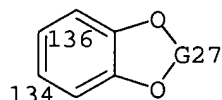
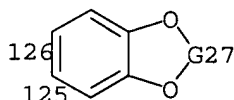
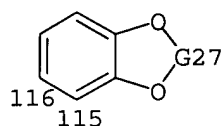
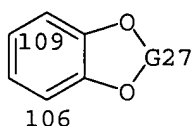
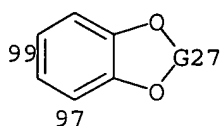
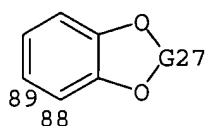
G3 = H  
 G4 = H  
 G5 = 31-138 32-137 / 81-138 82-137



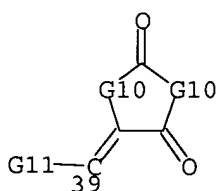
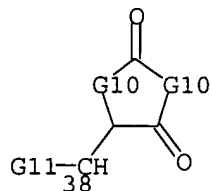
G6 = H

G7 = H

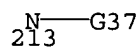
G8 = **phenylene (SO (1-) G23)** / 88-10 89-8 / 97-10 99-8 /  
106-10 109-8 / 116-10 115-8 / 125-10 126-8 / 134-10 136-8



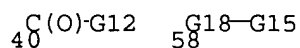
G9 = 39 / 38



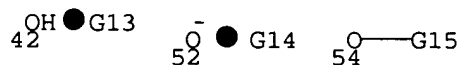
G10 = 213 / O / S



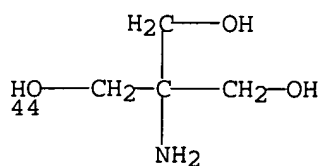
G11 = H / Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / 40 /  
NH2 / 58 / OH / F / Cl / Br / I



G12 = OH / 42 / 52 / 54



G13 = Na / K / R<TX "other pharmaceutically acceptable  
counter-ion"> / Ca / Mg / NH3 / 44



G14 = R<TX "pharmaceutically acceptable counter-ion",  
CH (1) +> / tetramethylammonium  
G15 = Ak<EC (1-20) C, BD (0-) D (0) T> / 56

G16-G17  
56

G16 = (1-6) CH2  
G17 = aryl  
G18 = NH / 60 / O

N-G15  
60

G19 = H / 71 / CHO / alkylcarbonyl<(1-19)> /  
alkoxycarbonyl<(1-20)> / alkoxy<(1-20)> /  
alkylamino<(1-20)> / CO2H / CN / F / Cl / Br / I / OH /  
alkenylcarbonyl<(2-19)> / arylcarbonyl /  
alkylcarbonyl (SR aryl) / NO2 /  
Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / (SC OMe / Me)

G20-C(O)-G21  
71

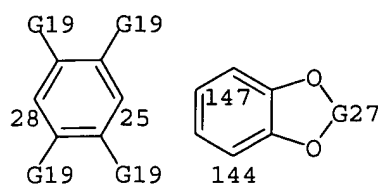
G20 = NH / O / 74

N-G22  
74

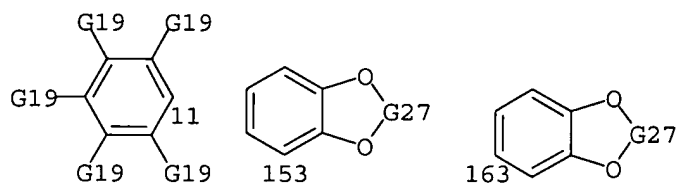
G21 = H / Ak<EC (1-20) C, BD (0-) D (0) T>  
G22 = Ak<EC (1-20) C, BD (0-) D (0) T>  
G23 = 77 / **CHO** / alkylcarbonyl<(1-19)> /  
alkoxycarbonyl<(1-20)> / alkoxy<(1-20)> /  
alkylamino<(1-20)> / CO2H / CN / F / Cl / Br / I / OH /  
alkenylcarbonyl<(2-19)> / arylcarbonyl /  
alkylcarbonyl (SR aryl) / NO2 /  
Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / (SC OMe / Me)

G20-C(O)-G21  
77

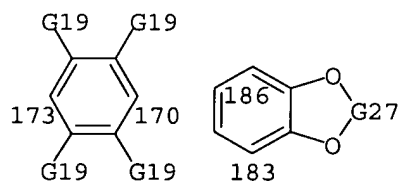
G24 = 28-30 25-29 / 147-30 144-29



G25 = 11 / 153 / 163

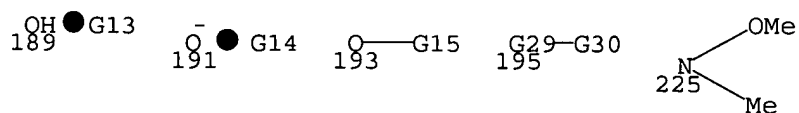


G26 = 173-138 170-167 / 183-138 186-167

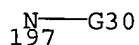


G27 = (1-2) CH2

G28 = OH / 189 / 191 / 193 / NH2 / 195 /  
Hy<EC (1-) Q (1-) N, AN (1-) N> / (SC OMe / NMe2 / 225 /  
morpholino) / (EX piperidino / piperazino)

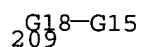


G29 = NH / 197



G30 = Ak<EC (1-20) C, BD (0-) D (0) T> (SO) /  
aryl<(6-10)> (SO)

G31 = H / NH2 / 209 / OH / F / Cl / Br / I



G32 = H

G33 = H

G34 = Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / 211

C(O)-G28  
211

G35 = H  
G36 = H  
G37 = H / Ak<EC (1-20) C, BD (0-) D (0) T> / 215

G16-G17  
215

G3 +G4 = NULL  
G6 +G7 = NULL  
G32+G33= NULL  
G35+G36= NULL  
MPL: claim 1

L28 ANSWER 5 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
AN 138:8214 MARPAT  
TI Medical use of thyromimetic compounds to treat hair loss and compositions  
IN Chian, Yuan-Ching Phoebe; Cornelius, Peter; Doherty, Niall Stephen; Dow, Robert Lee  
PA Pfizer Products Inc., USA  
SO Eur. Pat. Appl., 32 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM A61K031-167  
ICS A61K031-53; A61K031-41; A61K031-4196; A61K031-4245; A61K031-426;  
A61P017-14; A61K007-06  
CC 62-3 (Essential Oils and Cosmetics)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1262177	A2	20021204	EP 2002-253607	20020522
	EP 1262177	A3	20030903		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1389202	A	20030108	CN 2002-111473	20020424
	CA 2387198	AA	20021130	CA 2002-2387198	20020522
	ZA 2002004189	A	20031127	ZA 2002-4189	20020527
	AU 2002044462	A5	20021205	AU 2002-44462	20020530
	CN 1389203	A	20030108	CN 2002-121653	20020530
	US 2003007941	A1	20030109	US 2002-160516	20020530
	JP 2002370978	A2	20021224	JP 2002-159170	20020531

PRAI US 2001-294962P 20010531

AB The present invention provides methods and compns. for treating hair loss, including arresting and/or reversing hair loss and/or promoting hair growth, in mammals, such as humans, companion animals and livestock, using certain thyromimetic compds.

ST thyromimetic hair loss treatment; male pattern baldness therapy  
thyromimetic

IT Alopecia  
Human  
Shampoos  
Skin preparations (pharmaceutical)

(thyromimetic compds. for treatment of hair loss and male pattern baldness)

IT Thyroid hormones

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(thyromimetic compds. for treatment of hair loss and male pattern baldness)

IT 427-51-0, Cyproterone acetate 38304-91-5, Minoxidil 98319-26-7,  
Finasteride 290349-38-1 290349-63-2 290350-21-9 290350-58-2  
290352-09-9 290352-10-2 290352-11-3 290352-28-2 290352-70-4  
290352-71-5 290352-72-6 290352-73-7 290352-74-8 290352-75-9  
290352-76-0 290352-77-1 290352-78-2 290352-79-3 290352-80-6  
290352-81-7 290352-82-8 332926-06-4 332926-09-7 332926-70-2  
332927-11-4 332927-64-7 332927-73-8 332927-80-7 332927-85-2  
332927-86-3 332928-28-6 477186-11-1 477186-12-2 477186-13-3  
477186-14-4

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);

USES (Uses)

(thyromimetic compds. for treatment of hair loss and male pattern baldness)

MSTR 1

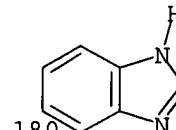
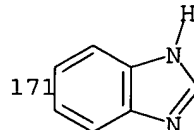
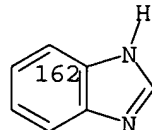
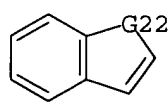
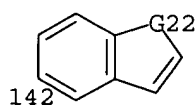
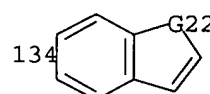
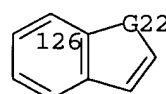
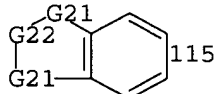
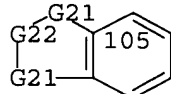
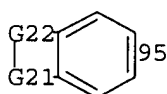
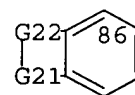
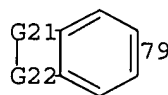
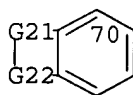
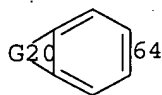
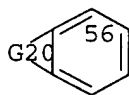
G3—G18—G1—G15—C(O)—C(O)—G17

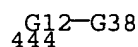
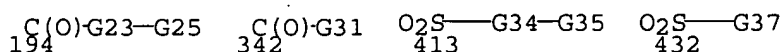
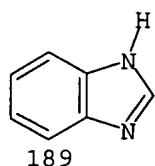
G1 = p-C<sub>6</sub>H<sub>4</sub> (SO (1-2) G<sub>2</sub>)

G<sub>2</sub> = F / Cl / Br / I / alkyl<(1-6)> / CF<sub>3</sub> / CN / OCF<sub>3</sub> /  
alkoxy<(1-6)> / (SC Me)

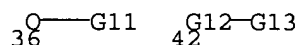
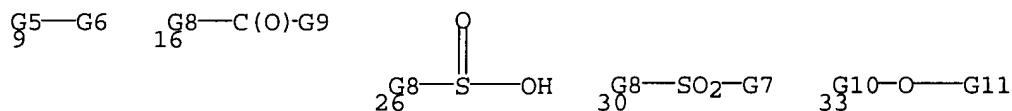
G<sub>3</sub> = 2 / 56 / 64 / 70 / 79 / 86 / 95 / 105 / 115 / 126 /  
134 / 142 / 150 / 162 / 171 / 180 / 189 / (SC 194 / 342 /  
413 / 432 / 444)

G<sub>4</sub>—G<sub>19</sub>  
2

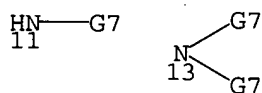




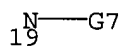
G4 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> / F / Cl /  
 Br / I / CN / aryl / heteroaryl<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ> / cycloalkyl<(3-10)> / Hy<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ, AR (0), BD (ALL) SE> / 9 / 16 / 26 / 30 / 33 / 36 /  
 42



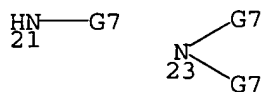
G5 = SO<sub>2</sub> / C(=O) / alkylene<(1-6)>  
 G6 = NH<sub>2</sub> / 11 / 13 / Hy<EC (1-2) Q (1-) N (0-) O (0-)  
 S (0) OTHERQ, AN (1-) N> (SO)



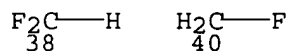
G7 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> (SO) / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO)  
 G8 = NH / 19



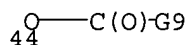
G9 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> (SO) / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO) / NH<sub>2</sub> / 21 / 23 /  
 Hy<EC (1-2) Q (1-) N (0-) O (0-) S (0) OTHERQ, AN (1-) N>  
 (SO)



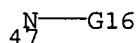
G10 = alkylene<(1-6)>  
 G11 = alkyl<(1-12)> / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / CF3 / 38 / 40 / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO)



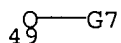
G12 = S / S(O) / SO2  
 G13 = alkyl<(1-12)> / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / aryl (SO) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D (0-) T, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0-) E8 (0) OTHER> (SO)  
 G14 = F / Cl / Br / I / alkyl<(1-6)> / CF3 / CN / OCF3 /  
 alkoxy<(1-6)> / OH / 44



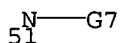
G15 = NH / 47



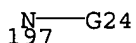
G16 = alkyl<(1-6)>  
 G17 = OH / 49 / NH2 / alkylamino<(1-6)> /  
 dialkylamino<(1-6)> / (SC OMe / OEt / OPr-i / NHMe)



G18 = O / S / S(O) / SO2 / CH2 / NH / 51

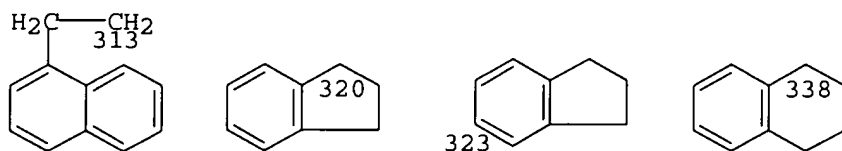
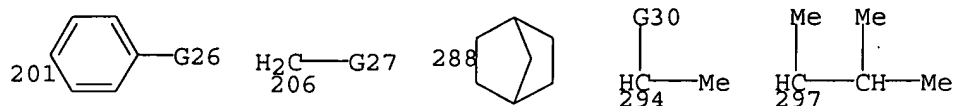


G19 = phenylene (SO (1-3) G14)  
 G20 = alkylene<EC (3-7) C, DC (0) M3>  
 G21 = alkylene<EC (2-6) C, DC (0) M3>  
 G22 = O / S / NH (SO)  
 G23 = NH / 197

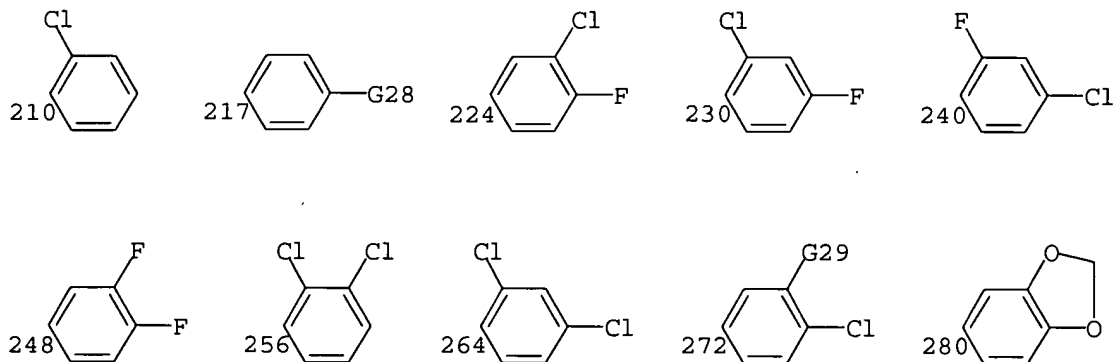




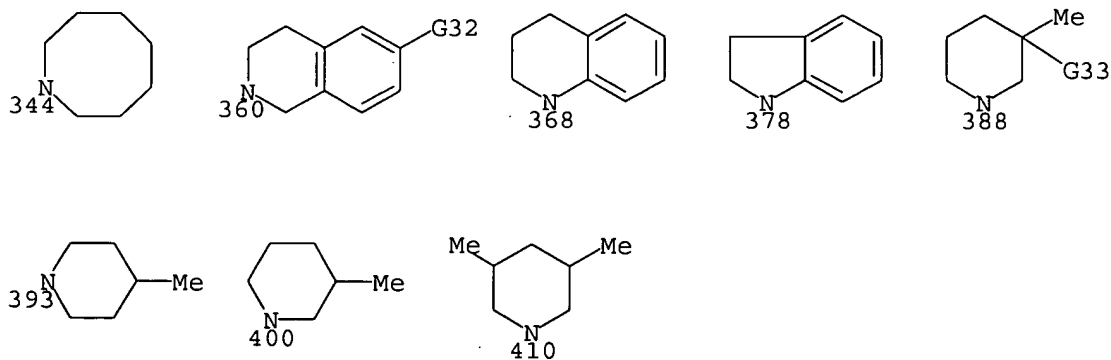
G24 = Me / Et  
 G25 = Me / Et / Pr-i / Pr-n / Bu-i / Bu-n / pentyl /  
 hexyl / 201 / 206 / cyclopropyl / cyclobutyl / cyclopentyl /  
 cyclohexyl / 288 / 294 / C(Me)2CH2Me / 297 / CH2CMe3 / 313 /  
 320 / 323 / 338



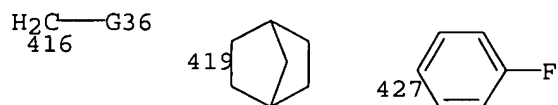
G26 = F / Ph  
 G27 = 2-thienyl / cyclopropyl / cyclohexyl / 210 / 217 /  
 224 / 230 / 240 / 248 / 256 / 264 / 272 / 1-naphthyl / 280



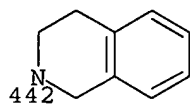
G28 = Cl / F / Pr-i / Bu-t  
 G29 = Cl / CF3  
 G30 = Ph / cyclohexyl / naphthyl  
 G31 = 344 / hexahydroazepino / piperidino / pyrrolidino /  
 morpholino / 360 / 368 / 378 / 388 / 393 / 400 / 410



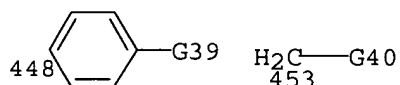
G32 = H / Me / OMe  
 G33 = Me / Ph  
 G34 = NH / NMe  
 G35 = Pr-i / 416 / cyclopropyl / 419 / Me / Et / 427 /  
 cyclobutyl / cyclopentyl / cyclohexyl / Pr-n / Bu-n /  
 pentyl / hexyl / octyl / decyl



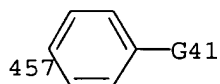
G36 = 2-thienyl / cyclopropyl / CH<sub>2</sub>OH  
 G37 = pyrrolidino / piperidino / morpholino / 442



G38 = 448 / naphthyl / 453 / Pr-i / cyclopentyl /  
 p-C<sub>6</sub>H<sub>4</sub>Me / Me / Et / Bu-n / Pr-n

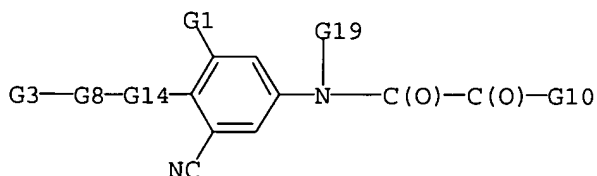


G39 = Cl / H  
 G40 = cyclopropyl / cyclobutyl / cyclohexyl / 457



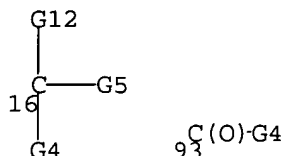
G41 = F / H  
 MPL: claim 1  
 NTE: or prodrugs or pharmaceutically acceptable salts  
 NTE: substitution is restricted  
 NTE: additional substitution also claimed  
 STE: or geometric or optical isomers

MSTR 2

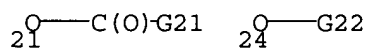


G1 = F / Cl / Br / I / alkyl<(1-8)> / CN /

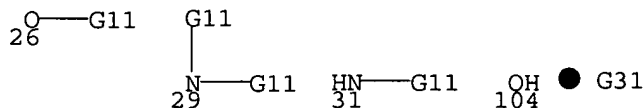
perfluoroalkyl<(1-8)> / (SC Me)  
 G2 = alkyl<(1-8)>  
 G3 = F / Cl / Br / I / perfluoroalkyl<(1-8)> /  
 alkyl<(1-8)> / CHO / alkylcarbonyl<(1-8)> /  
 alkyl<(1-8)> (SR OH) / aryl (SO (1-2) G16) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ>  
 (SO (1-2) G16) / alkyl<(1-8)> (SR aryl) /  
 arylcarbonyl (SO (1-2) G16) / cycloalkyl<(3-10)>  
 (SO (1-2) G16) / alkyl<(1-8)> (SO cycloalkyl<(3-10)>) / 16 /  
 93



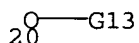
G4 = H / alkyl<(1-8)> / aryl (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ> (SO) /  
 alkyl<(1-8)> (SR aryl) / cycloalkyl<(3-10)> (SO) /  
 alkyl<(1-8)> (SR cycloalkyl<(3-10)>)  
 G5 = H / alkyl<(1-8)>  
 G6 = OH (SO) / 21 / 24



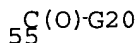
G7 = F / Cl / Br / I / alkyl<(1-8)> /  
 perfluoroalkyl<(1-8)>  
 G8 = phenylene (SR (3) G9)  
 G9 = (-1) G2 / (1) G6 / (-1) G7 / H  
 G10 = OH / 26 / NH2 / 29 / 31 / 104



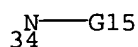
G11 = alkyl<(1-8)> / (SC Me / Et)  
 G12 = OH / 20



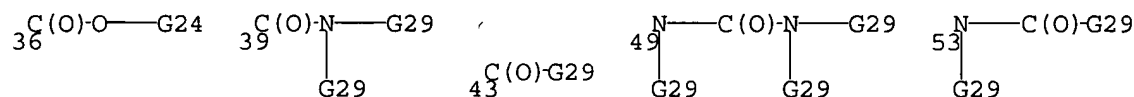
G13 = alkyl<(1-8)> / 55 / (SC Pr-i)



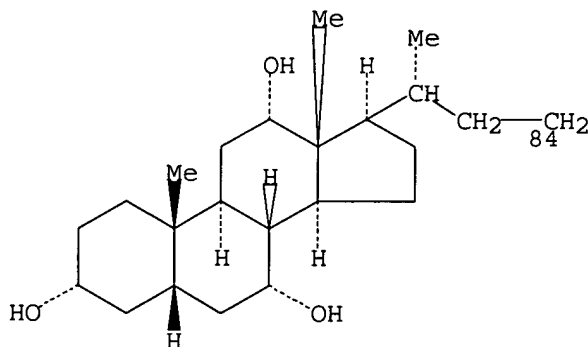
G14 = O / S / S(O) / SO2 / C(O) / NH / 34



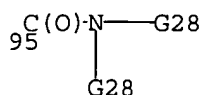
G15 = alkyl<(1-8)>  
 G16 = F / Cl / Br / I / CF3 / OCF3 / CN /  
 alkyl<(1-6)> (SO (1-) G17) / alkoxy<(1-6)> /  
 aryl (SO (1-) G18) / heteroaryl<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ> (SO (1-) G18) / CO2H / 36 / 39 / 43 / 49 / 53



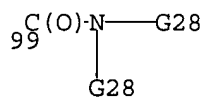
G17 = F / Cl / Br / I / OCF3 / CF3 / Ph  
 G18 = F / Cl / Br / I / OCF3 / CF3 / alkyl<(1-4)> /  
 alkoxy<(1-4)>  
 G19 = H / alkyl<(1-8)> / perfluoroalkyl<(1-8)>  
 G20 = H / R / (EX alkyl<(1-8)> / alkyl<(1-8)> (SR G23) /  
 aryl (SO) / heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ>  
 (SO))  
 G21 = R / (EX alkyl<(1-12)> / aryl (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S (0) OTHERQ> (SO) /  
 alkyl<(1-8)> (SR aryl) / 84)



G22 = R / (EX alkyl<(1-8)> / alkenyl<(2-8)> /  
 cycloalkyl<(5-7)> / alkyl<(1-8)> (SR G23) /  
 2-tetrahydropyranyl / alkyl<(1-8)> (SR cycloalkyl<(5-7)>))  
 G23 = aryl (SO) / heteroaryl<EC (0-) N (0-) O (0-) S (0)  
 OTHERQ> (SO)  
 G24 = alkyl<(1-6)> / alkenyl<(2-6)> /  
 alkyl<(1-6)> (SR alkoxy<(1-6)>) / aryl (SO (1-2) G30) /  
 Hy<EC (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1),  
 RS (1) M4 (1) X8> (SO (1-2) G30) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (2),  
 RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0-) E8 (0) OTHER>  
 (SO (1-2) G30) / alkyl<(1-4)> (SR G25) /  
 alkyl<(1-4)> (SR G26) / alkyl<(1-4)> (SR OH) /  
 alkyl<(1-4)> (SR (1-) G27) / alkyl<(1-4)> (SR 95) /  
 cycloalkyl<(3-10)>

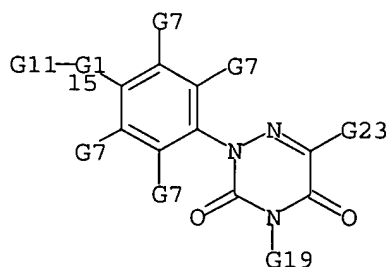


G25 = aryl (SO (1-2) G30)  
 G26 = Hy<EC (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1), RS (1) M4 (1) X8> (SO (1-2) G30) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (2),  
 RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0-) E8 (0) OTHER>  
 (SO (1-2) G30)  
 G27 = F / Cl / Br / I  
 G28 = H / alkyl<(1-6)> / cycloalkyl<(3-10)> / aryl (SO) /  
 heteroaryl (SO)  
 G29 = H / alkyl<(1-6)> / alkenyl<(2-6)> /  
 alkyl<(1-6)> (SR alkoxy<(1-6)>) / aryl (SO (1-2) G30) /  
 Hy<EC (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1),  
 RS (1) M4 (1) X8> (SO (1-2) G30) /  
 Hy<EC (1-8) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (2),  
 RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0-) E8 (0) OTHER>  
 (SO (1-2) G30) / alkyl<(1-4)> (SR G25) /  
 alkyl<(1-4)> (SR G26) / alkyl<(1-4)> (SR OH) /  
 alkyl<(1-4)> (SR (1-) G27) / alkyl<(1-4)> (SR 99) /  
 cycloalkyl<(3-10)>

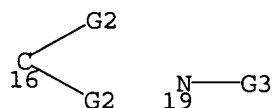


G30 = H / R  
 G31 = R<TX "pharmaceutically acceptable salt"> / (SC K /  
 Na)  
 MPL: claim 2  
 NTE: or prodrugs  
 NTE: additional ring formation also claimed  
 STE: or geometric or optical isomers

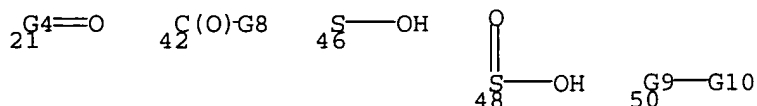
MSTR 3



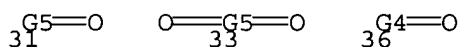
G1 = O / S / S(O) / SO2 / NH / 19 / C(O) / CH=CH / 16 /  
 CHO



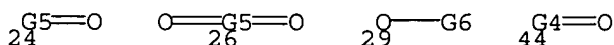
G2 = H / F  
 G3 = alkyl<(1-12)> (SO) / 21 / alkenyl<(2-6)> /  
 cycloalkyl<(3-10)> / 42 / SH / 46 / 48 / 50



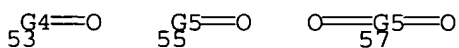
G4 = Ak<EC (1-12) C, BD (ALL) SE> (SO)  
 G5 = Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0)  
 OTHERQ, RC (1-3)> (SO)  
 G6 = Ph (SO) / naphthyl (SO) / biphenyl (SO) /  
 Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-3)> (SO) / 31 / 33 / alkyl<(1-12)> (SO) / 36 /  
 alkenyl<(2-6)> / cycloalkyl<(3-10)>



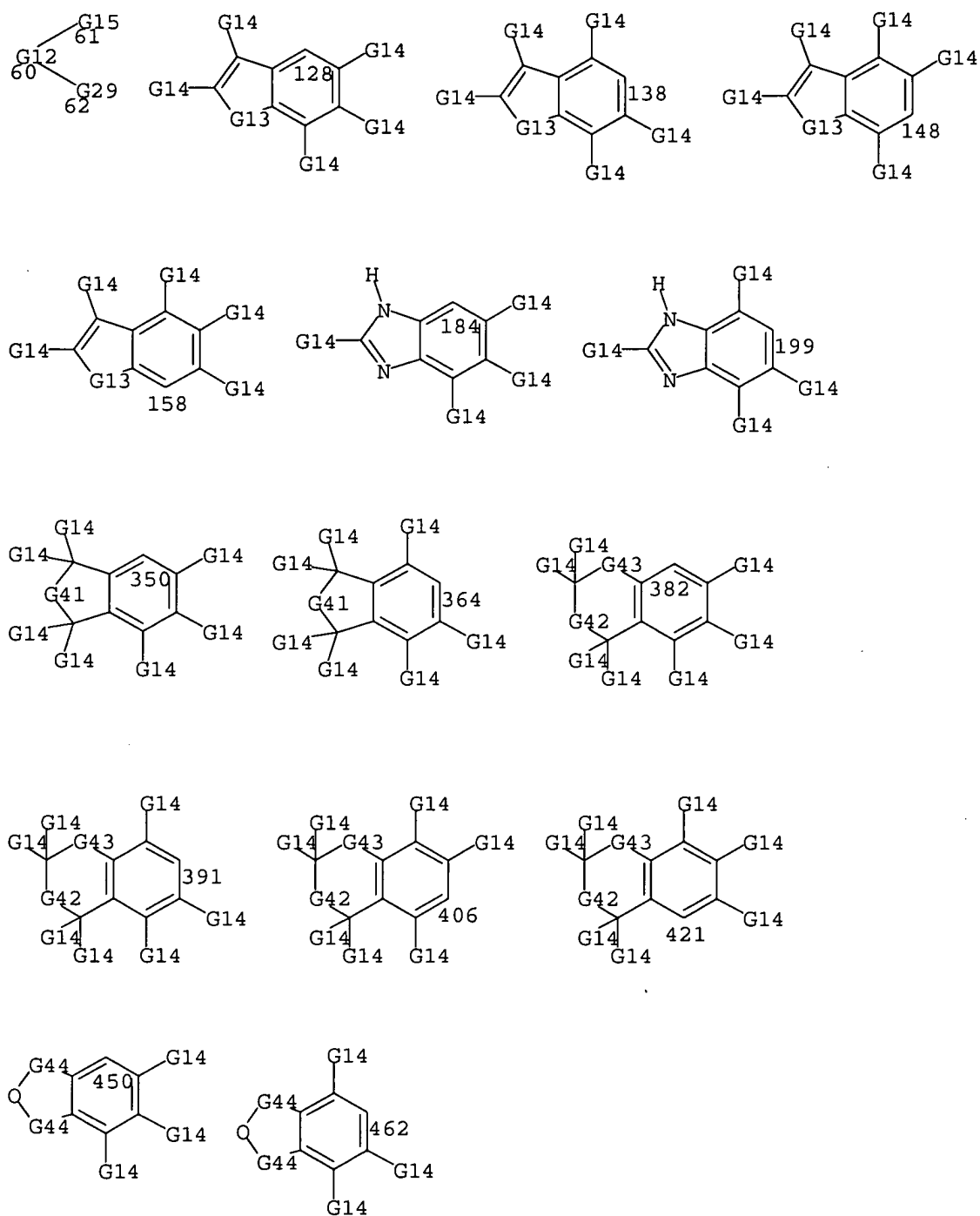
G7 = (2-) H / F / Cl / Br / I / alkyl<(1-6)> / CN / OH /  
 alkoxy<(1-6)> (SO (1-) F) / CF3 / (SC Me)  
 G8 = H / alkyl<(1-12)> (SO) / 44 / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
 biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, RC (1-3)> (SO) / 24 / 26 / 29



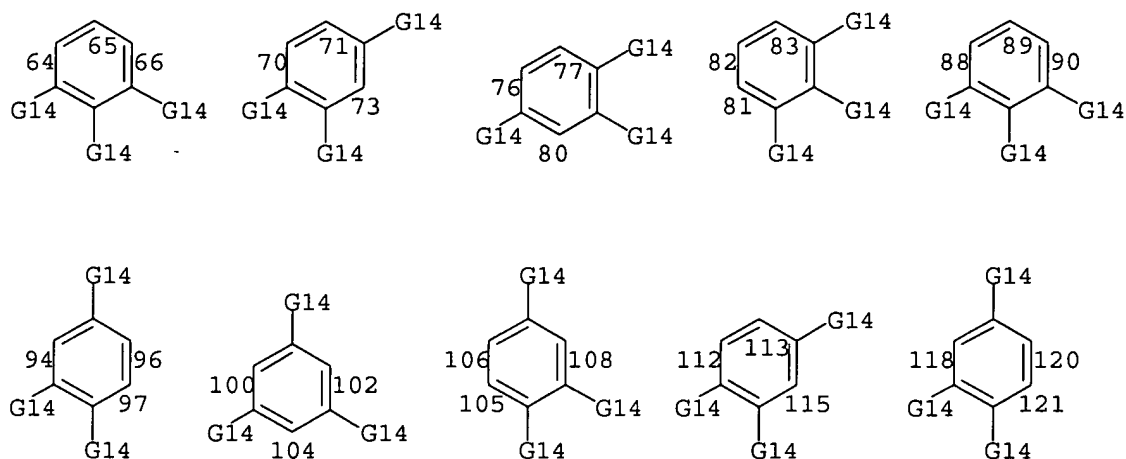
G9 = S / S(O) / SO2  
 G10 = alkyl<(1-12)> (SO) / 53 / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
 biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, RC (1-3)> (SO) / 55 / 57



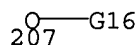
G11 = 60 / 128 / 138 / 148 / 158 / 184 / 199 / 350 / 364 /  
 382 / 391 / 406 / 421 / 450 / 462



G12 = 64-15 65-61 66-62 / 70-15 71-61 73-62 /  
 76-15 77-61 80-62 / 82-15 83-61 81-62 / 88-15 90-61 89-62 /  
 94-15 96-61 97-62 / 100-15 102-61 104-62 /  
 106-15 108-61 105-62 / 112-15 115-61 113-62 /  
 118-15 121-61 120-62



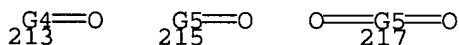
G13 = NH / O / S  
 G14 = H / R  
 G15 = OH / 207 / (SC OMe)



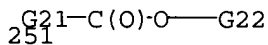
G16 = alkyl<(1-4)> (SO) / 209 / 211



G17 = Ak<EC (1-4) C, BD (ALL) SE> (SO)  
 G18 = H / alkyl<(1-12)> (SO) / 213 / alkenyl<(2-12)> /  
 cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
 biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, RC (1-3)> (SO) / 215 / 217

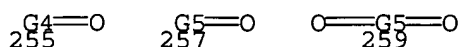


G19 = H / alkyl<(1-4)> (SO (1-) G20) / 251

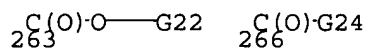


G20 = F / Cl / Br / I  
 G21 = (0-3) CH2  
 G22 = alkyl<(1-12)> (SO) / 255 / alkenyl<(2-12)> (SO Ph) /  
 alkenyl<EC (2-12) C, BD (2) D> / cycloalkyl<(3-10)> /  
 Ph (SO) / naphthyl (SO) / biphenyl (SO) /  
 Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-3)> (SO) / 257 / 259

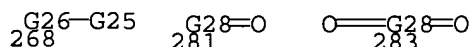




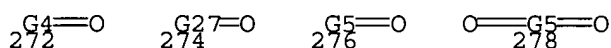
G23 = H / alkyl<(1-6)> / 263 / 266 / CN



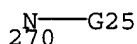
G24 = 268 / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-) S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO) / 281 / 283



G25 = alkyl<(1-12)> (SO) / 272 / cycloalkyl<(3-10)> (SO) / 274 / alkenyl<(2-12)> / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1-3)> (SO) / 276 / 278



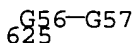
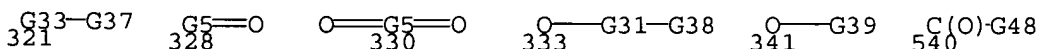
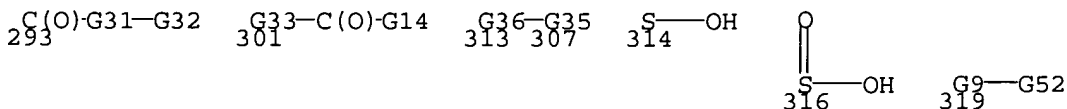
G26 = NH / 270



G27 = Cb<EC (3-10) C, AR (0), BD (ALL) SE> (SO)

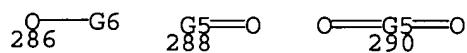
G28 = Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-) S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO)

G29 = alkyl<(1-19)> (SO (1-) G30) / CHO / alkylcarbonyl<(1-6)> (SO (1-) F) / 293 / NH2 (SO) / 625 / 540 / 301 / 313 / SH / 314 / 316 / 319 / 321 / Ph (SO) / naphthyl (SO) / biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ, RC (1-3)> (SO) / 328 / 330 / 333 / 341 / F / Cl / Br / I

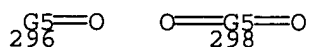


G30 = 286 / F / cycloalkyl<(3-10)> / Ph (SO) /

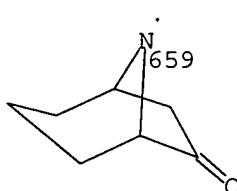
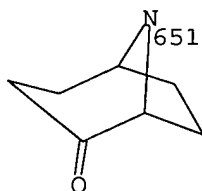
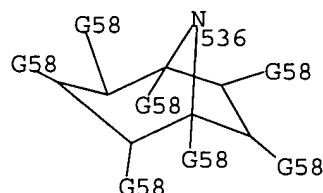
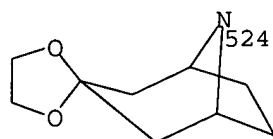
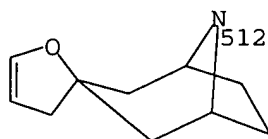
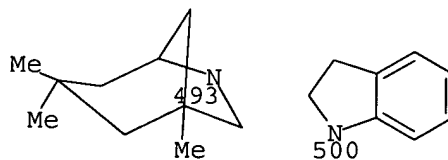
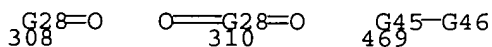
naphthyl (SO) / biphenyl (SO) /  
 Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-3)> (SO) / 288 / 290



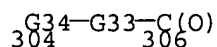
G31 = NULL / alkylene<(1-6)>  
 G32 = cycloalkyl<(3-10)> / Ph (SO) / naphthyl (SO) /  
 biphenyl (SO) / Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, RC (1-3)> (SO) / 296 / 298



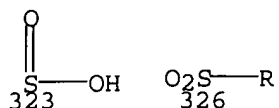
G33 = NH (SO)  
 G34 = NULL / alkylene<(1-3)>  
 G35 = NH2 (SO) / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-)  
 S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO) / 308 / 310 /  
 (SC 469 / piperidino (SO (1-) G47) / pyrrolidino / 493 /  
 500 / 512 / 524 / 536 / 643 / 651 / 659)



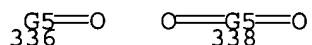
G36 = 304-60 306-307 / SO2



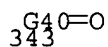
G37 = 323 / 326



G38 = Ph (SO) / naphthyl (SO) / biphenyl (SO) /  
Hy<EC (4-8) A (1-4) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
RC (1-3)> (SO) / 336 / 338



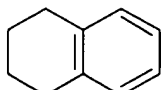
G39 = alkyl<(7-12)> (SO) / 343 /  
alkyl<(1-6)> (SO (1-) F) / alkenyl<(2-12)> /  
cycloalkyl<(3-10)>



G40 = Ak<EC (7-12) C, BD (ALL) SE> (SO)  
G41 = (1-5) CH2 (SO)  
G42 = (0-4) CH2 (SO)  
G43 = O / S / NH (SO)  
G44 = (2-6) CH2 (SO)  
G45 = NH / NMe  
G46 = alkyl<(5-8)> / 472 / 484 / cyclobutyl /  
cyclopentyl / cyclohexyl / Ph (SO (1-) F)

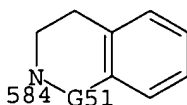
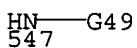
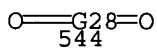
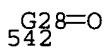


472



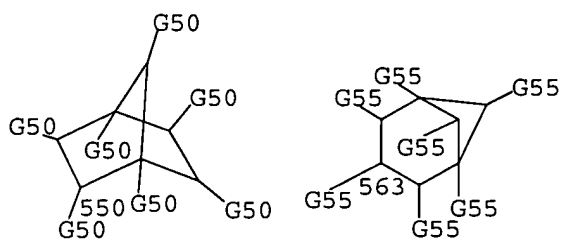
484

G47 = Me / Ph  
G48 = NH2 (SO) / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-)  
S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO) / 542 / 544 /  
(SC 547 / piperidino (SO (1-) G47) / pyrrolidino /  
hexahydroazepino / 584)

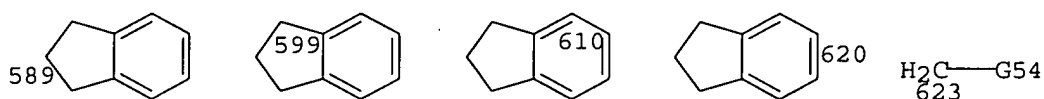


584 G51

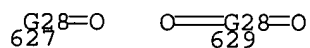
G49 = cyclopentyl (SO (1-) CH2OH) / 550 / 563



G50 = H / CH<sub>2</sub>OH / Me  
 G51 = (0-1) CH<sub>2</sub>  
 G52 = R / (SC Ph (SO (1-) G53) / 589 / 599 / 610 / 620 / 623)

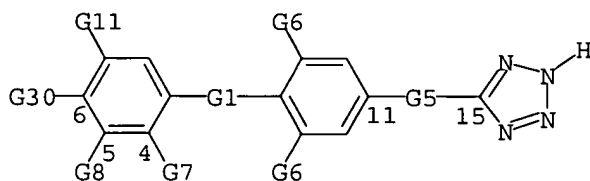


G53 = Me / Et  
 G54 = cycloalkyl<(4-6)>  
 G55 = H / Me  
 G56 = alkylene<(1-3)>  
 G57 = NH<sub>2</sub> (SO) / Hy<EC (4-8) A (1-4) Q (1-) N (0-) O (0-) S (0) OTHERQ, AN (1-) N, RC (1-3)> (SO) / 627 / 629

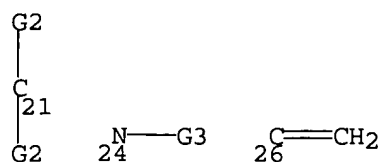


G58 = H / OH  
 MPL: claim 3  
 NTE: or pharmaceutically acceptable salts or prodrugs  
 NTE: additional ring formation also claimed  
 NTE: substitution is restricted  
 STE: and isomers

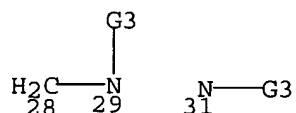
MSTR 4



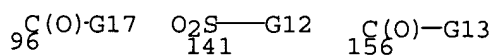
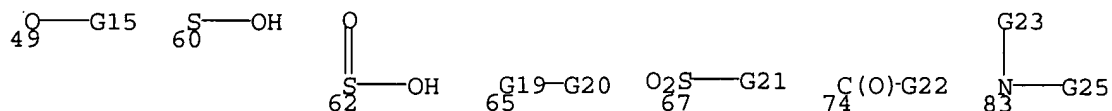
G1 = O / S / S(O) / SO<sub>2</sub> / 21 / C(O) / CHOH / 24 / 26



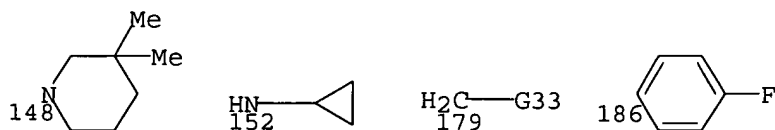
G2 = H / F  
 G3 = H / alkyl<(1-6)> (SO G4)  
 G4 = cycloalkyl<(3-6)> / OMe  
 G5 = O / CH2 / CH2CH2 / S / S(O) / SO2 / 28-11 29-15 / 31 / NULL



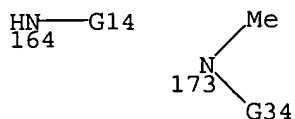
G6 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 / alkoxy<(1-8)> / CN / (SC Me)  
 G7 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 / alkoxy<(1-8)> / CN  
 G8 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> / alkynyl<(2-12)> / F / Cl / Br / I / CN / OH / 49 / SH / 60 / 62 / 65 / aryl / heteroaryl<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> / Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0), BD (ALL) SE> / 67 / 74 / 83 / 96 / (SC Ph (SO) / naphthyl (SO) / Pr-i / 141 / 156)



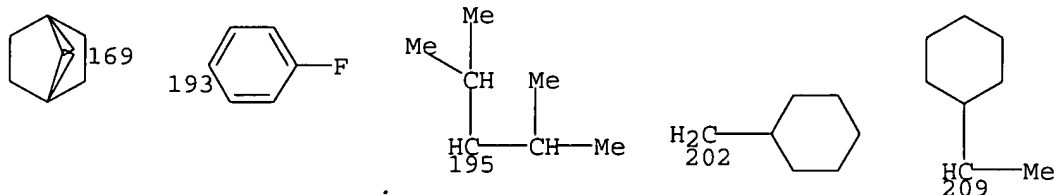
G11 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 / alkoxy<(1-8)> / CN  
 G12 = pyrrolidino / piperidino / 148 / 152 / NMe2 / 179 / 186



G13 = piperidino / 164 / pyrrolidino / 173



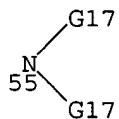
G14 = cyclobutyl / cyclohexyl / 169 / Me / Bu-n / Pr-i /  
heptyl / nonyl / 193 / cyclopentyl / cycloheptyl /  
cyclooctyl / 195 / 202 / 209



G15 = alkyl<(1-12)> (SO) / aryl /  
heteroaryl<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ> /  
cycloalkyl<(3-10)> / Hy<EC (0-) O (0-) N (0-) S (0-) P (0)  
OTHERQ, AR (0), BD (ALL) SE> / 53

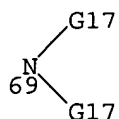
<sup>53</sup>C(O)-G16

G16 = 55 / Hy<EC (3-10) A (1-) N (0-) O (0-) S (0)  
OTHERQ, AN (1-) N> (SO) / H / alkyl<(1-10)> (SO) /  
alkenyl<(2-10)> / alkoxy<(2-10)> / cycloalkyl<(3-10)> /  
Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
BD (ALL) SE> / aryl / heteroaryl<EC (0-) O (0-) N (0-) S (0-)  
P (0) OTHERQ>

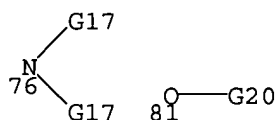


G17 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> (SO) /  
alkynyl<(2-12)> / aryl / heteroaryl<EC (0-) O (0-) N (0-)  
S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> /  
Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, BD (ALL) SE>  
G19 = S / S(O) / SO<sub>2</sub>  
G20 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / aryl / heteroaryl<EC (0-) O (0-) N (0-)  
S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> /  
Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
BD (ALL) SE>  
G21 = 69 / Hy<EC (1-) N (0-) O (0-) S (0) OTHERQ,  
AN (1-) N> (SO)

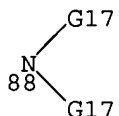
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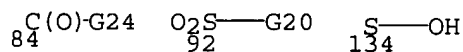
G22 = 76 / Hy<EC (1-) N (0-) O (0-) S (0) OTHERQ,  
AN (1-) N> (SO) / 81 / OH



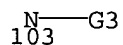
G23 = H / alkyl<(1-6)> (SO (1-) G4)  
G24 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / aryl / heteroaryl<EC (0-) O (0-) N (0-)  
S (0-) P (0) OTHERQ> / cycloalkyl<(3-10)> /  
Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
BD (ALL) SE> / 88 / Hy<EC (1-) N (0-) O (0-) S (0) OTHERQ,  
AN (1-) N> (SO)



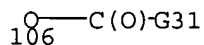
G25 = 84 / 92 / 134 / H / alkyl<(1-12)> (SO) /  
alkenyl<(2-12)> / alkynyl<(2-12)> / aryl /  
heteroaryl<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ> /  
cycloalkyl<(3-10)> / Hy<EC (0-) O (0-) N (0-) S (0-) P (0)  
OTHERQ, AR (0), BD (ALL) SE>



G26 = (3-7) CH2 (SO)  
G27 = O / S / 103

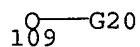


G28 = (2-6) CH2 (SO)  
G29 = (1-5) CH2 (SO)  
G30 = OH / alkoxy<(1-6)> / 106 / F

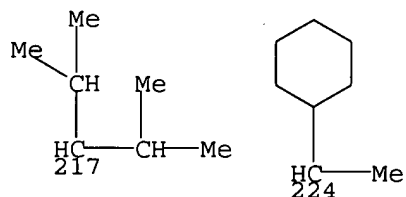


G31 = H / alkyl<(1-10)> (SO) / alkenyl<(2-10)> /  
alkoxy<(2-10)> / cycloalkyl<(3-10)> /  
Hy<EC (0-) O (0-) N (0-) S (0-) P (0) OTHERQ, AR (0),  
BD (ALL) SE> / aryl / heteroaryl<EC (0-) O (0-) N (0-) S (0-)

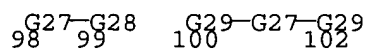
P (0) OTHERQ&gt; / OH / 109.



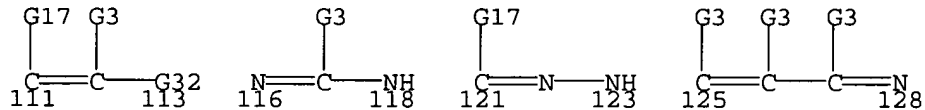
G32 = NH / O / S  
 G33 = cyclopropyl / cyclobutyl / cyclopentyl / cyclohexyl  
 G34 = cyclobutyl / cyclopentyl / cyclohexyl /  
 cycloheptyl / cyclooctyl / 217 / 224



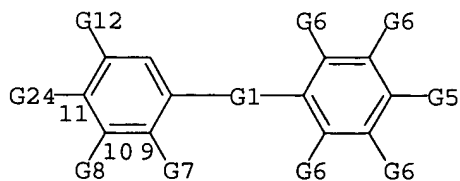
G7 +G8 = G26 / 98-4 99-5 / 100-4 102-5



G8 +G30= 111-5 113-6 / 116-5 118-6 / 121-5 123-6 /  
 125-5 128-6

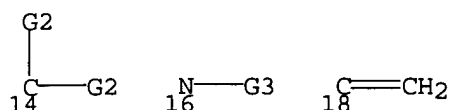


MPL: claim 6  
 NTE: pharmaceutically acceptable salts or prodrugs  
 NTE: substitution is restricted  
 NTE: additional oxo substitution also disclosed  
 STE: stereoisomers

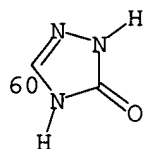
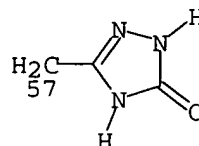
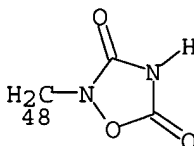
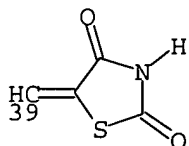
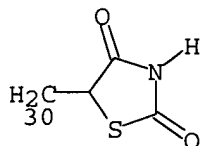
**MSTR 5**

G1 = O / S / S(O) / SO2 / 14 / C(O) / CHOH / NH / 16 / 18

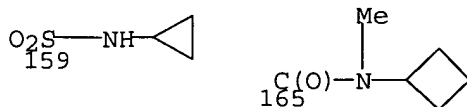
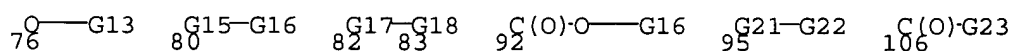




G2 = H / F  
 G3 = alkyl<(1-6)> (SO (1) G4)  
 G4 = cycloalkyl<(3-6)> / OMe  
 G5 = 30 / 39 / 48 / 57 / 60



G6 = (2-) H / F / Cl / Br / I / alkyl<(1-8)> / **CF3** /  
 OCF3 / alkoxy<(1-8)> / CN / (SC Me)  
 G7 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 /  
 alkoxy<(1-8)> / CN  
 G8 = H / alkyl<(1-8)> (SO) / alkenyl<(2-12)> /  
 alkynyl<(2-12)> / F / Cl / Br / I / CN / OH / 76 / 82 / 80 /  
 Ph (SO) / naphthyl (SO) / heteroaryl<EC (1-3) Q (0-) N (0-)  
 O (0-) S (0) OTHERQ, RC (1-2)> (SO) /  
 Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
 Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 AR (0), BD (0-) D, RC (1-2)> (SO) / CO2H / 92 / 95 / 106 /  
 (SC Pr-i / 159 / 165)



G9 = (3-6) CH2 (SO)  
 G10 = (0-5) CH2 (SO)  
 G11 = O / S  
 G12 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 /  
 alkoxy<(1-8)> / CN  
 G13 = alkyl<(1-12)> (SO) / Ph (SO) / naphthyl (SO) /  
 heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /

Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
AR (0), BD (0-) D, RC (1-2)> (SO) / 78

<sup>78</sup>C(O)-G14

G14 = alkyl<(1-10)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-10)> / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
Ph (SO) / naphthyl (SO) / heteroaryl<EC (1-3) Q (0-) N (0-)  
O (0-) S (0) OTHERQ, RC (1-2)> (SO) /  
Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
AR (0), BD (0-) D, RC (1-2)> (SO)  
G15 = S / S(O) / SO2  
G16 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / Ph (SO) / naphthyl (SO) /  
heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
AR (0), BD (0-) D, RC (1-2)> (SO)  
G17 = 84-10 85-83 / SO2 / C(O)

<sup>84</sup>G20-<sup>85</sup>C(O)

G18 = NH2 / 86 / Hy<EC (3-10) A (1-2) Q (1-) N (0-) O (0-)  
S (0) OTHERQ, AN (1-) N> (SO)

<sup>86</sup>G19-G16

G19 = NH / 88

<sup>88</sup>N-G16

G20 = O / NH / 90

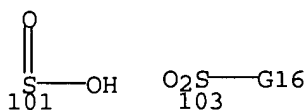
<sup>90</sup>N-G3

G21 = NH / 99

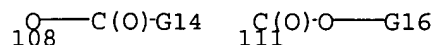
<sup>99</sup>N-G3

G22 = 97 / 101 / 103

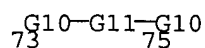
<sup>97</sup>C(O)-G23



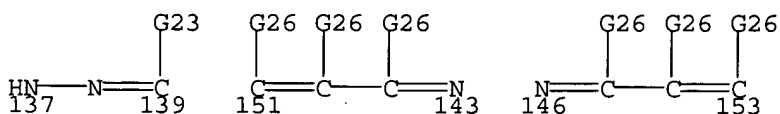
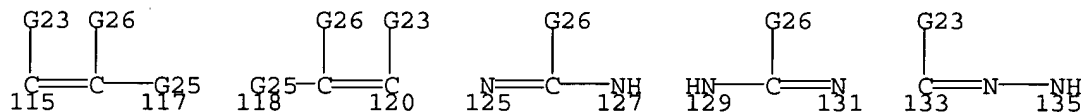
G23 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 alkynyl<(2-12)> / Ph (SO) / naphthyl (SO) /  
 heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
 Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 AR (0), BD (0-) D, RC (1-2)> (SO)  
 G24 = OH / alkoxy<(1-6)> / 108 / F / CO<sub>2</sub>H / 111 / (SC OMe)



G25 = NH / O / S  
 G26 = H / alkyl<(1-6)> (SO (1) G4)  
 G7 +G8 = G9 / 73-9 75-10



G8 +G24= 115-10 117-11 / 118-10 120-11 / 125-10 127-11 /  
 129-10 131-11 / 133-10 135-11 / 137-10 139-11 /  
 151-10 143-11 / 146-10 153-11

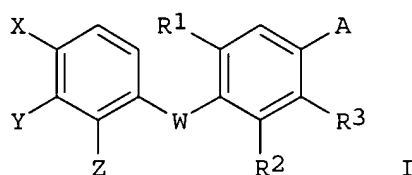


MPL: claim 7  
 NTE: and prodrugs and pharmaceutically acceptable salts  
 NTE: substitution is restricted  
 NTE: additional oxo substitution also claimed  
 STE: and stereoisomers

L28 ANSWER 6 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
 AN 138:305 MARPAT  
 TI Preventive or recurrence-suppressive agents for liver cancer  
 IN Ohnota, Hideki; Hayashi, Morimichi; Kuroda, Junji; Komatsu, Yoshimitsu;  
 Nishimura, Toshihiro  
 PA Kissei Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 142 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 IC ICM A61K045-00  
 ICS A61K031-197; A61P001-16; A61P035-00  
 CC 1-6 (Pharmacology)  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 PI WO 2002094319 A1 20021128 WO 2002-JP4601 20020513  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
 TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 PRAI JP 2001-149775 20010518  
 GI



- AB Preventive or recurrence-suppressive agents for liver cancer containing as the active ingredient thyroid hormone receptor agonists having an effect of inhibiting the expression of liver estrogen sulfotransferase; and usage of the agents. The thyroid hormone receptor agonists are preferably compounds represented by the general formula I (R1 and R2 = alkyl, halogeno, or the like; R3 = hydrogen, alkyl, halogeno, or the like; X = hydroxyl or the like; W = O, S, CH<sub>2</sub>, or the like; Y = alkyl, -Q-T (wherein Q = O, CH<sub>2</sub>, CH(OH), or the like; and T = optionally substituted aryl or the like), or the like; Z = hydrogen, alkoxy, or the like; and A = -NHCO-Y1-CO<sub>2</sub>R8, -CH<sub>2</sub>CH(R9)NR10R11, or the like) or pharmaceutically acceptable salts thereof.
- ST antitumor hepatoma thyroid hormone receptor agonists estrogen sulfotransferase
- IT Carcinoma  
 (hepatocellular; preventive or recurrence-suppressive agents for liver cancer containing thyroid hormone receptor agonists)
- IT Antitumor agents  
 Liver, neoplasm  
 (hepatoma; preventive or recurrence-suppressive agents for liver cancer containing thyroid hormone receptor agonists)
- IT Thyroid hormone receptors  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (preventive or recurrence-suppressive agents for liver cancer containing thyroid hormone receptor agonists)
- IT 51-48-9, T4, biological studies 70-18-8, Glutathione, biological studies 6893-02-3, T3 9000-86-6, ALT 9001-60-9 9001-78-9, Alkaline phosphatase 9032-76-2, Estrogen sulfotransferase 9046-27-9,  $\gamma$ -Glutamyltransferase 50812-37-8, Glutathione-S-transferase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (preventive or recurrence-suppressive agents for liver cancer containing thyroid hormone receptor agonists)
- IT 355129-15-6P 355129-23-6P 364331-19-1P 364331-20-4P 364331-24-8P  
 364332-53-6P 364332-59-2P 364332-60-5P 373641-10-2P 373641-11-3P  
 373641-12-4P 373641-13-5P 373641-14-6P 373641-15-7P 373641-16-8P

373641-17-9P	373641-18-0P	373641-19-1P	373641-20-4P	373641-22-6P
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373641-51-1P	373641-53-3P	373641-54-4P	373641-56-6P	373641-57-7P
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477274-10-5P	477274-11-6P	477274-12-7P		

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preventive or recurrence-suppressive agents for liver cancer containing thyroid hormone receptor agonists)

IT 2423-71-4P, 2,6-Dimethyl-4-nitrophenol 3886-19-9P, 2,6-Dibenzoyloxyacetophenone 4049-39-2P, 4-Benzyloxy-3-hydroxybenzaldehyde 20404-02-8P, 2,3,6-Trichloro-4-nitrophenol 23860-35-7P, Cyclohexylacetylchloride 29417-96-7P 40500-05-8P 53906-85-7P, 4-Iodo-3,5-dimethylnitrobenzene 85064-61-5P, 4-Tetrahydropyranylacetic acid 92892-06-3P 103260-44-2P 117832-15-2P 130312-00-4P 156740-97-5P, 4-(4-Methoxyphenoxy)-3,5-dimethylnitrobenzene 355377-72-9P, 5-(2,6-Dimethyl-4-nitrophenoxy)-2-methoxybenzaldehyde 373641-93-1P 373641-94-2P 373641-96-4P 373641-97-5P, 4-Benzyloxy-3-(4-fluorophenoxy)benzaldehyde 373641-98-6P 373641-99-7P 373642-00-3P 373642-01-4P 373642-02-5P 373642-03-6P, 4-Benzyloxy-3-isopropylbenzaldehyde 373642-05-8P 373642-07-0P 373642-09-2P 373642-10-5P 373642-12-7P 373642-14-9P 373642-16-1P 373642-18-3P 373642-20-7P, 1-Benzyloxy-4-(2,3,6-trichloro-4-nitrophenoxy)-5,6,7,8-tetrahydronaphthalene 373642-22-9P, 3-Chloro-6-[5-(2,6-dimethyl-4-nitrophenoxy)-2-methoxybenzyl]pyridazine 373642-24-1P, 1-[6-Benzyloxy-3-(2,6-dimethyl-4-nitrophenoxy)-2-hydroxyphenyl]ethanone 373642-26-3P, 1-[6-Benzyloxy-3-(2,6-dimethyl-4-nitrophenoxy)-2-methoxyphenyl]ethanone 373642-28-5P 373642-30-9P 373642-32-1P, N,N-Dibenzyl-4-iodo-3,5-dimethylaniline 373642-34-3P, (4-Benzyloxy-3-isopropylphenyl)(4-dibenzylamino-2,6-dimethylphenyl)methanol 373642-37-6P 373642-39-8P, [4-Benzyloxy-3-(4-fluorophenoxy)phenyl](4-dibenzylamino-2,6-dimethylphenyl)methanol 373642-41-2P 373642-43-4P 373642-45-6P 373642-47-8P 373642-49-0P 373642-51-4P 373642-53-6P, 5-(2,6-Dimethyl-4-nitrophenoxy)-2-hydroxybenzaldehyde 373642-55-8P 373642-61-6P 373642-62-7P 373642-63-8P 373642-66-1P 373642-67-2P 373642-68-3P 373642-69-4P 373642-70-7P 373642-71-8P 373642-72-9P 373642-73-0P 373642-75-2P 373642-76-3P 373642-77-4P 373642-78-5P 373642-79-6P 373642-80-9P, 3-[3-[5-(4-Amino-2,6-dimethylphenoxy)-2-hydroxybenzyl]phenyl]propanoic acid 373642-82-1P 373642-83-2P, 1-[5-(4-Amino-2,6-dimethylphenoxy)-2-hydroxyphenyl]-2-cyclohexylethanone 373642-84-3P, 4-(4-Amino-2,6-dimethylphenoxy)-2-(2-cyclohexylethyl)phenol 373642-85-4P, 4-(4-Amino-2,6-dimethylphenoxy)-2-isopropyl-3-methoxyphenol 373642-86-5P, 4-[4-Methoxy-3-[2-(2-methoxyphenyl)ethyl]phenoxy]-3,5-dimethylaniline 373642-87-6P, (4-Amino-2,6-dimethylphenyl)(4-hydroxy-3-isopropylphenyl)methanone 373642-88-7P, 4-(4-Amino-2,6-dimethylbenzyl)-2-isopropylphenol 373642-89-8P, 4-(4-Methoxybenzyl)-3,5-dimethylaniline 373642-91-2P, 4-(4-Amino-2,6-dimethylphenoxy)-2-(4-tetrahydropyranyloxy)phenol 373642-92-3P, 4-(4-Amino-2,6-dimethylbenzyl)-2-(4-tetrahydropyranyloxy)phenol 373642-93-4P, 1-(4-Amino-2,6-

dimethylphenoxy)-4-benzyloxy-5,6,7,8-tetrahydronaphthalene 373642-94-5P,  
 4-(4-Benzyloxy-3-isopropylphenoxy)-2,3,5-trichloroaniline 373642-95-6P,  
 4-(4-Benzyloxy-3-isopropylphenoxy)-3,5-dibromoaniline 373642-96-7P  
 373642-97-8P, 4-(4-Benzyloxy-5,6,7,8-tetrahydro-1-naphthyloxy)-2,3,5-  
 trichloroaniline 373642-98-9P, 6-[5-(4-Amino-2,6-dimethylphenoxy)-2-  
 hydroxybenzyl]-2H-pyridazin-3-one 373643-00-6P 373643-01-7P  
 373643-02-8P 373643-03-9P 373643-04-0P 373643-05-1P,  
 2,2,2-Trifluoro-N-[4-(4-methoxybenzyl)-3,5-dimethylphenyl]acetamide  
 373643-06-2P, 2,2,2-Trifluoro-N-[4-[3-(4-fluorobenzoyl)-4-hydroxybenzyl]-  
 3,5-dimethylphenyl]acetamide 373643-07-3P 373643-08-4P,  
 4-(4-Amino-2,6-dimethylphenoxy)-2-(2-cyclohexyl-1-hydroxyethyl)phenol  
 373643-09-5P, [5-(4-Amino-2,6-dimethylphenoxy)-2-hydroxyphenyl](2-  
 methoxyphenyl)methanone 373643-10-8P, [5-(4-Amino-2,6-dimethylphenoxy)-2-  
 hydroxyphenyl](2-hydroxyphenyl)methanone 373643-11-9P 373643-12-0P,  
 4-(4-Amino-2,6-dimethylbenzyl)-2-(4-fluorophenoxy)phenol 373643-15-3P  
 373643-16-4P 373643-17-5P 373643-18-6P 373643-19-7P 373643-20-0P  
 373643-21-1P 373643-23-3P 477274-13-8P 477274-14-9P,  
 [2-Benzyloxy-5-(2,6-dimethyl-4-nitrophenyl)phenyl]methanol 477274-15-0P,  
 [5-(2,6-Dimethyl-4-nitrophenyl)-2-methoxyphenyl]methanol 477274-16-1P,  
 2-(2-Cyclohexylethyl)-4-(2,6-dimethyl-4-nitrophenyl)phenol 477274-17-2P,  
 4-(4-Amino-2,6-dimethylphenoxy)-2-(4-fluorophenoxy)phenol 477274-18-3P  
 477274-19-4P, Ethyl 4-(4-benzyloxy-3-isopropylbenzyl)-3,5-  
 dimethylmalonate  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

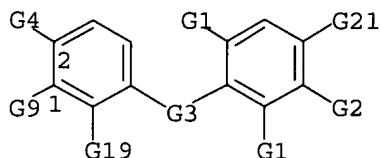
(preventive or recurrence-suppressive agents for liver cancer containing  
 thyroid hormone receptor agonists)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

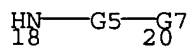
RE

- (1) Ciba-Geigy A-G; JP 06-172275 A 1994 CAPLUS
- (2) Ciba-Geigy A-G; CA 2100817 A 1994 CAPLUS
- (3) Ciba-Geigy A-G; EP 580550 A 1994 CAPLUS
- (4) Ciba-Geigy A-G; AU 667924 B2 1994 CAPLUS
- (5) Ledda-Columbano, G; Cancer Research 2000, V60(3), P603 CAPLUS
- (6) Yokoyama, N; J Med Chem 1995, V38(4), P695 CAPLUS

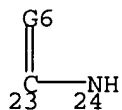
#### MSTR 1



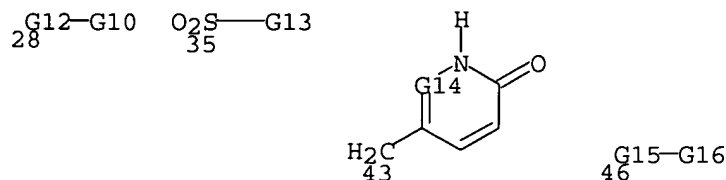
G1 = alkyl<(1-3)> / CF3 / F / Cl / Br / I / CN / (SC Me)  
 G2 = H / alkyl<(1-3)> / CF3 / F / Cl / Br / I / (SC Et /  
 Pr-n / Me)  
 G3 = O / S / CH2 / CHOH / C(O) / S(O) / SO2  
 G4 = OH / 18



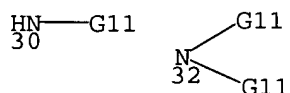
G5 = C(O) / S(O) / SO2 / 23-18 24-20



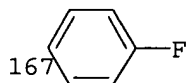
- G6 = O / S  
 G7 = alkyl<(1-10)> / cycloalkyl<(3-8)> /  
 aryl<RC (1-3)> (SO (1-) G8)  
 G8 = OH / alkyl<(1-6)> (SO CO2H) / alkoxy<(1-6)> /  
 alkyl<(1-6)> (SR alkoxy carbonyl<(1-6)>) / F / Cl / Br / I  
 G9 = alkyl<(1-10)> / CF3 / cycloalkyl<(3-8)> /  
 aryl<RC (1-3)> (SO (1-) G8) / 28 / 35 / 43 / 46 / (SC Pr-i)



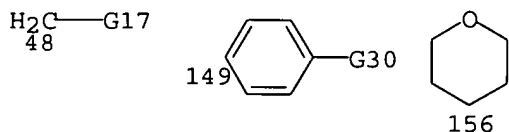
- G10 = NH2 / 30 / 32 / Hy<EC (1-) N, AN (1-) N,  
 RS (0-) E5 (0-) E6 (0-) E7 (0) OTHER>



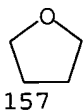
- G11 = alkyl<(1-10)> / cycloalkyl<(3-8)> /  
 alkyl<(1-6)> (SR cycloalkyl<(3-8)>) /  
 aryl<RC (1-3)> (SO (1-) G8)  
 G12 = SO2 / C(O)  
 G13 = alkyl<(1-10)> / cycloalkyl<(3-8)> /  
 alkyl<(1-6)> (SR cycloalkyl<(3-8)>) /  
 aryl<RC (1-3)> (SO (1-) G8) / (SC 167)



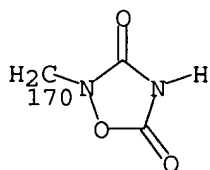
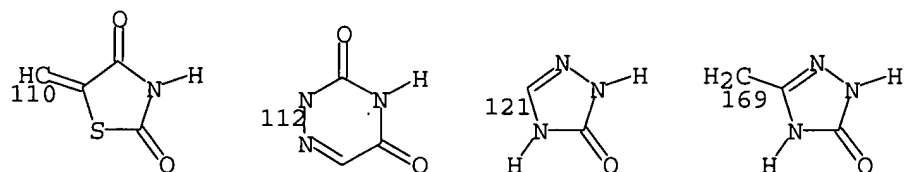
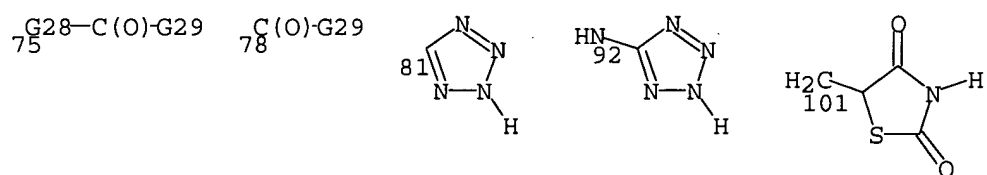
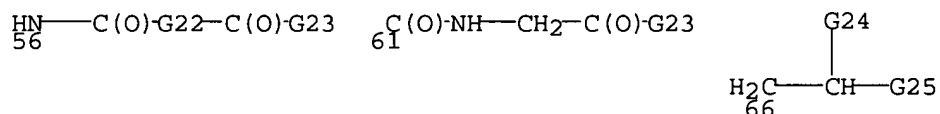
- G14 = CH / N  
 G15 = O / CH2 / CHOH / C(O)  
 G16 = aryl<RC (1-3)> (SO (1-) G8) / 48 /  
 cycloalkyl<(3-8)> / Hy<EC (1-) O (0) OTHERQ (-8) C,  
 BD (ALL) SE> / (SC 149 / 156)



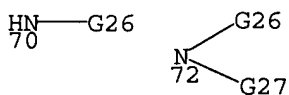
- G17 = aryl<RC (1-3)> (SO (1-) G8) / cycloalkyl<(3-8)> /  
 Hy<EC (1-) O (0) OTHERQ (-8) C, BD (ALL) SE> / (SC 157)



G18 = H / alkyl<(1-6)> / (SC Me / Pr-i / Et)  
 G19 = H / alkoxy<(1-3)>  
 G20 = (3-4) CH2  
 G21 = 56 / 61 / 66 / 75 / 78 / 81 / 92 / **101** / 110 / 112 /  
 121 / 169 / 170



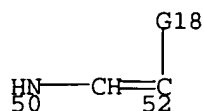
G22 = NULL / alkylene<(1-6)> / CH=CH / (SC CH2)  
 G23 = OH / alkoxy<(1-6)> (SO (1-) aryl<RC (1-3)>)  
 G24 = CO2H / alkoxycarbonyl<(1-6)>  
 G25 = NH2 / 70 / 72



G26 = alkyl<(1-6)> / CHO / alkylcarbonyl<(1-4)>  
 G27 = alkyl<(1-6)>  
 G28 = alkylene<(1-6)>



G29 = OH / alkoxy<(1-6)>  
 G30 = F / Cl  
 G4 +G9 = 50-2 52-1



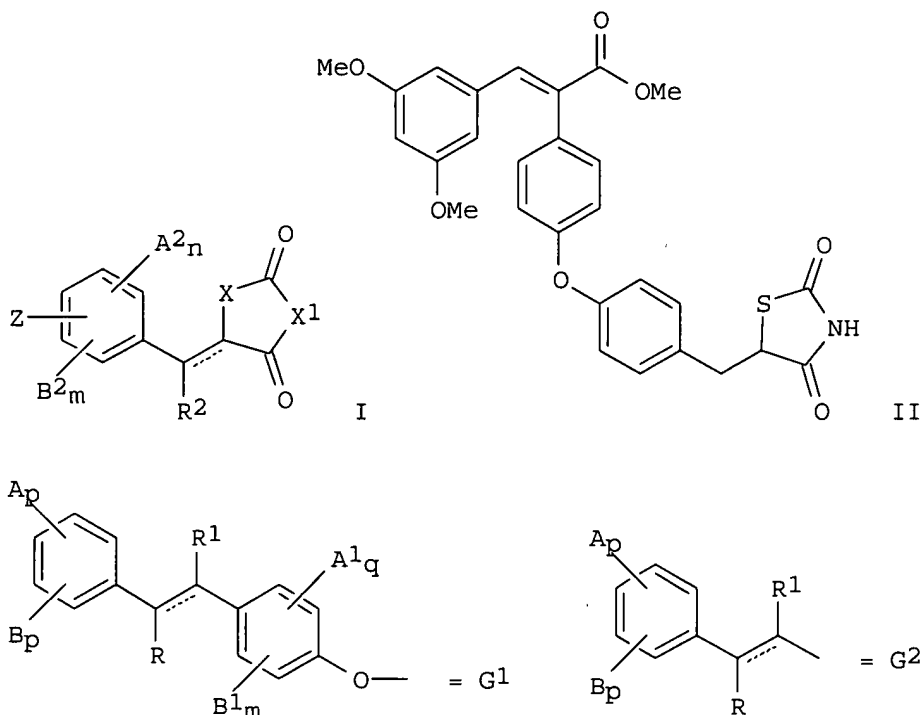
G9 +G19= G20  
 MPL: claim 3  
 NTE: or pharmacologically acceptable salts

L28 ANSWER 7 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
 AN 136:216745 MARPAT  
 TI Preparation and activity of diphenylethylene thiazolidinediones and  
 analogs as antidiabetics, antiinflammatories, or immunomodulators  
 IN Nag, Bishwajit; Dey, Debendranath; Medicherla, Satyanarayana; Neogi,  
 Partha  
 PA USA  
 SO U.S. Pat. Appl. Publ., 30 pp., Cont.-in-part of U.S. Ser. No. 591,105.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM A61K031-426  
 ICS A61K031-421; A61K031-4166; C07D277-34; C07D263-18; C07D233-40  
 NCL 514369000  
 CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1, 25  
 FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002025975	A1	20020228	US 2001-785554	20010220
	US 6245814	B1	20010612	US 1998-74925	19980508
	US 2002032225	A1	20020314	US 2001-843167	20010427
	CA 2410171	AA	20011220	CA 2001-2410171	20010605
	WO 2001095859	A2	20011220	WO 2001-US17950	20010605
	WO 2001095859	A3	20030828		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 2001066670	A5	20011224	AU 2001-66670	20010605
	EP 1360178	A2	20031112	EP 2001-944241	20010605
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR			
	JP 2004527455	T2	20040909	JP 2002-510041	20010605
	US 2003181494	A1	20030925	US 2002-265902	20021008
	US 2004186299	A1	20040923	US 2004-808519	20040325
PRAI	US 1998-74925		19980508		
	US 1999-287237		19990406		

US 2000-591105 20000609  
 US 2001-785554 20010220  
 US 2001-843167 20010427  
 WO 2001-US17950 20010605

GI



AB Title compds. I [wherein Z = G1, H, A<sub>2</sub>, B<sub>2</sub>, or G<sub>2</sub>; n, m, and q = independently 0-4; p = independently 0-5; R, R<sub>1</sub>, and R<sub>2</sub> = independently H, (un)substituted alkyl or alkenyl, CO<sub>2</sub>Z<sub>1</sub>, CO<sub>2</sub>R<sub>3</sub>, NH<sub>2</sub>, NHR<sub>3</sub>, NR<sub>3</sub>, OH, OR<sub>3</sub>, or halo; Z<sub>1</sub> = H, Na, K, or other pharmaceutically acceptable counterion; R<sub>3</sub> = alkyl or alkenyl; A, A<sub>1</sub>, and A<sub>2</sub> = independently H, acylamino, acyloxy, alkanoyl, alkoxy, alkylamino, alkylcarboxylamino, carboxyl, CN, H, or OH; B, B<sub>1</sub>, and B<sub>2</sub> = independently H, acylamino, acyloxy, alkanoyl, alkenoyl, alkoxy, alkylamino, alkylcarboxylamino, aroyl, aralkanoyl, carboxyl, CN, halo, or OH; or A and B or A<sub>1</sub> and B<sub>1</sub> or A<sub>2</sub> and B<sub>2</sub> together form a methylenedioxy or ethylenedioxy group; X and X<sub>1</sub> = independently NH, NR<sub>3</sub>, O, or S] are provided which are effective in lowering blood glucose level, serum insulin, triglyceride, and free fatty acid levels in animal models of Type II diabetes. In contrast to previously reported thiazolidinedione compds., known to lower leptin levels, the present compds. increase leptin levels and have no known liver toxicity. Thus, II was prepared in five steps by condensation of 3,5-dimethoxybenzaldehyde with 4-hydroxyphenylacetic acid (47%), followed by esterification (97%), etherification with 4-fluorobenzaldehyde (77%), condensation with 2,4-thiazolidinedione (86%), and hydrogenation of the ylidene double bond (40%). Oral administration of II to obese mice caused a 62% drop in blood glucose level. I are useful for the treatment of inflammation,

- inflammatory and immunol. diseases, insulin resistance, hyperlipidemia, coronary artery disease, cancer, and multiple sclerosis.
- ST diphenylethylene thiazolidinedione prepn antidiabetic antiinflammatory; thiazolidinedione prepn leptin level increase no liver toxicity
- IT Hepatotoxicity  
(avoidance; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Glycerides, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(blood; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Artery, disease  
(coronary, treatment; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Autoimmune disease  
(exptl. autoimmune encephalomyelitis, treatment; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Encephalomyelitis  
(exptl. autoimmune, treatment; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Cytokines  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(inhibitors; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Anti-inflammatory agents  
(nonsteroidal; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Antidiabetic agents  
(oral; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Antiarthritics  
Antiobesity agents  
Antitumor agents  
Human  
Hypolipemic agents  
Immunomodulators  
(preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Interleukin 1  
Interleukin 1 $\beta$   
Interleukin 6  
Tumor necrosis factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Multiple sclerosis  
(therapeutic agents; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT Blood vessel, disease  
(treatment; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)
- IT 249886-47-3P

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)

IT 9000-86-6, Glutamic pyruvic transaminase 9000-97-9, Glutamic oxalacetic transaminase 169494-85-3, Leptin 329900-75-6, Cyclooxygenase 2 329967-85-3, Cyclooxygenase 1

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)

IT 156-38-7, p-Hydroxyphenylacetic acid 459-57-4, p-Fluorobenzaldehyde 2295-31-0, 2,4-Thiazolidinedione 7311-34-4, 3,5-Dimethoxybenzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)

IT 380881-25-4P 380881-27-6P 380881-29-8P 380881-31-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

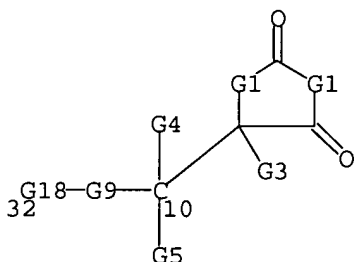
(preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)

IT 9004-10-8, Insulin, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(resistance; preparation and activity of diphenylethylene thiazolidinediones and analogs as antidiabetics, antiinflammatories, or immunomodulators)

MSTR 1A



G1 = 8 / O / S

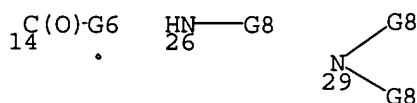
N—G2  
8

G2 = H / alkyl<(1-20)> / alkenyl<(2-20)>

G3 = H

G4 = H

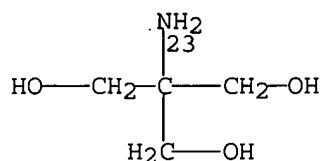
G5 = H / Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / 14 /  
NH2 / 26 / 29 / OH / alkoxy<(1-20)> / alkenyloxy<(2-20)> /  
F / Cl / Br / I



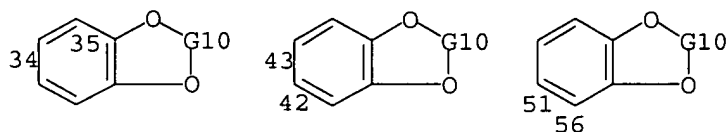
G6 = OH / 16 / alkoxy<(1-20)> / alkenyloxy<(2-20)> /  
(SC OMe)

<sup>OH</sup>  
16 ● G7

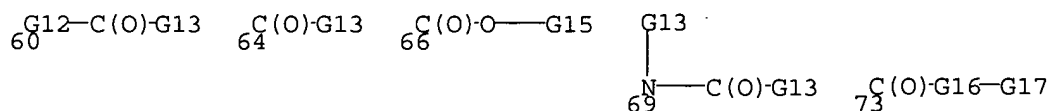
G7 = Na / K / R<TX "pharmaceutically acceptable  
counterion"> / Ca / Mg / NH3 / 23



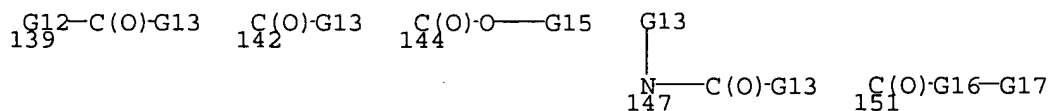
G8 = alkyl<(1-20)> / alkenyl<(2-20)>  
G9 = phenylene (SO (1-) G11) / 35-32 34-10 /  
43-32 42-10 / 51-32 56-10



G10 = (1-2) CH2  
G11 = 60 / 64 / CO2H / 66 / alkoxy<(1-20)> /  
alkenyloxy<(2-20)> / alkylamino<(1-20)> /  
alkenylamino<(2-20)> / 69 / CN / F / Cl / Br / I / OH /  
arylcarbonyl (SO) / 73 / (SC OMe)



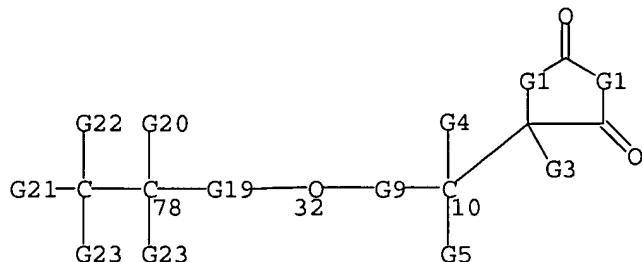
G12 = O / NH  
G13 = H / alkyl<(1-20)> / alkenyl<(2-20)>  
G15 = alkyl<(1-20)> / alkenyl<(2-20)>  
G16 = alkylene<(1-20)>  
G17 = aryl (SO)  
G18 = H / 139 / 142 / CO2H / 144 / alkoxy<(1-20)> /  
alkenyloxy<(2-20)> / alkylamino<(1-20)> /  
alkenylamino<(2-20)> / 147 / CN / F / Cl / Br / I / OH /  
arylcarbonyl (SO) / 151



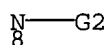
G3 +G4 = NULL  
MPL: claim 1

NTE: substitution is restricted

**MSTR 1B**



G1 = 8 / O / S

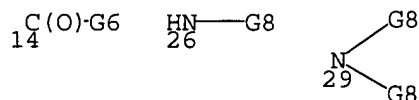


G2 = H / alkyl<(1-20)> / alkenyl<(2-20)>

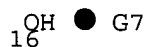
G3 = H

G4 = H

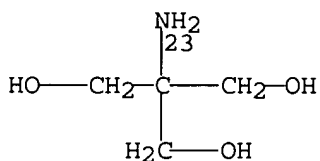
G5 = H / Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / 14 /  
NH2 / 26 / 29 / OH / alkoxy<(1-20)> / alkenyloxy<(2-20)> /  
F / Cl / Br / I



G6 = OH / 16 / alkoxy<(1-20)> / alkenyloxy<(2-20)> /  
(SC OMe)

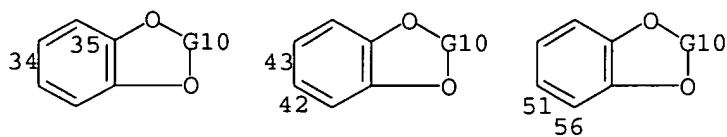


G7 = Na / K / R<TX "pharmaceutically acceptable  
counterion"> / Ca / Mg / NH3 / 23



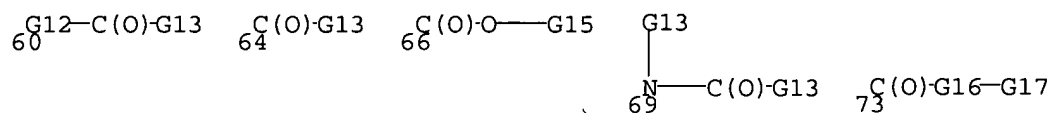
G8 = alkyl<(1-20)> / alkenyl<(2-20)>

G9 = **phenylene** (SO (1-) G11) / 35-32 34-10 /  
43-32 42-10 / 51-32 56-10



G10 = (1-2) CH<sub>2</sub>

G11 = 60 / 64 / CO<sub>2</sub>H / 66 / alkoxy<(1-20)> /  
 alkenyloxy<(2-20)> / alkylamino<(1-20)> /  
 alkenylamino<(2-20)> / 69 / CN / F / Cl / Br / I / OH /  
 arylcarbonyl (SO) / 73 / (SC OMe)



G12 = O / NH

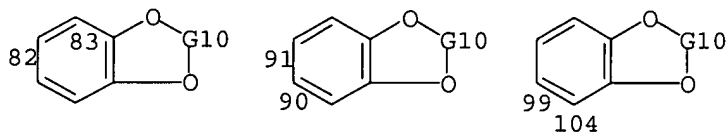
G13 = H / alkyl<(1-20)> / alkenyl<(2-20)>

G15 = alkyl<(1-20)> / alkenyl<(2-20)>

G16 = alkylene<(1-20)>

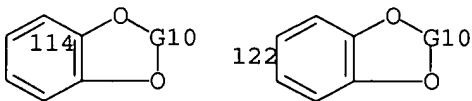
G17 = aryl (SO)

G19 = **phenylene** (SO (1-) G11) / 83-78 82-32 /  
 91-78 90-32 / 99-78 104-32



G20 = H

G21 = Ph (SO (1-) G11) / 114 / 122



G22 = H

G23 = H / R

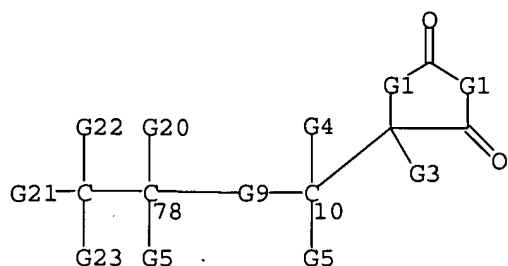
G3 +G4 = NULL

G20+G22= NULL

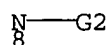
MPL: claim 1

NTE: substitution is restricted

MSTR 1C



G1 = 8 / O / S

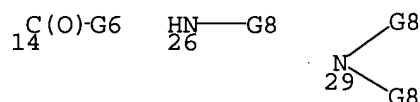


G2 = H / alkyl<(1-20)> / alkenyl<(2-20)>

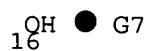
G3 = H

G4 = H

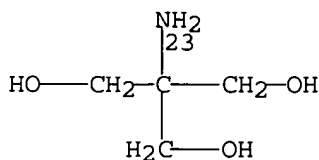
G5 = H / Ak<EC (1-20) C, BD (0-) D (0) T> (SO) / 14 /  
NH2 / 26 / 29 / OH / alkoxy<(1-20)> / alkenyloxy<(2-20)> /  
F / Cl / Br / I



G6 = OH / 16 / alkoxy<(1-20)> / alkenyloxy<(2-20)> /  
(SC OMe)

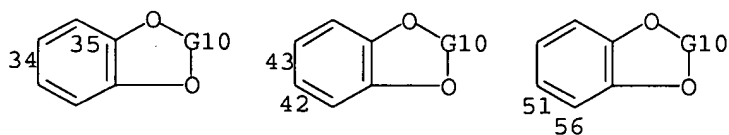


G7 = Na / K / R<TX "pharmaceutically acceptable  
counterion"> / Ca / Mg / NH3 / 23



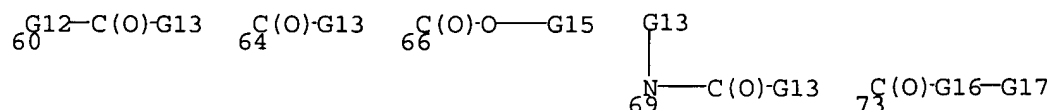
G8 = alkyl<(1-20)> / alkenyl<(2-20)>

G9 = phenylene (SO (1-) G11) / 35-78 34-10 /  
43-78 42-10 / 51-78 56-10

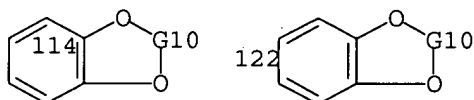




G10 = (1-2) CH2  
 G11 = 60 / 64 / CO2H / 66 / alkoxy<(1-20)> /  
 alkenyloxy<(2-20)> / alkylamino<(1-20)> /  
 alkenylamino<(2-20)> / 69 / CN / F / Cl / Br / I / OH /  
 arylcarbonyl (SO) / 73 / (SC OMe)



G12 = O / NH  
 G13 = H / alkyl<(1-20)> / alkenyl<(2-20)>  
 G15 = alkyl<(1-20)> / alkenyl<(2-20)>  
 G16 = alkylene<(1-20)>  
 G17 = aryl (SO)  
 G20 = H  
 G21 = Ph (SO (1-) G11) / 114 / 122



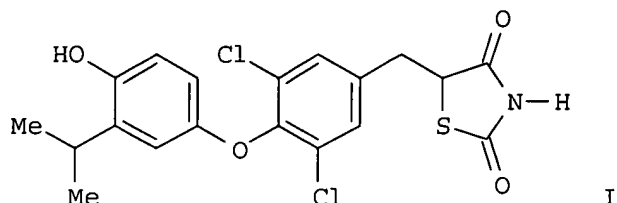
G22 = H  
 G23 = H / R  
 G3 +G4 = NULL  
 G20+G22= NULL  
 MPL: claim 1  
 NTE: substitution is restricted

L28 ANSWER 8 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
 AN 135:318502 MARPAT  
 TI Preparation of [(hydroxyphenoxy)benzyl]thiazolidinediones and analogs as  
 thyroid receptor ligands  
 IN Chiang, Yuan-Ching P.  
 PA Pfizer Products Inc., USA  
 SO Eur. Pat. Appl., 51 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C07D271-06  
 ICS A61K031-4196; C07D277-34; C07D277-20; C07D249-12; A61K031-427;  
 A61K031-4245; A61P003-04; A61P003-06; A61P009-10  
 CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1148054	A1	20011024	EP 2001-303490	20010417
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2001051645	A1	20011213	US 2001-836765	20010417
	US 6620830	B2	20030916		
	CA 2344574	AA	20011021	CA 2001-2344574	20010419

BR 2001001527	A	20011120	BR 2001-1527	20010419
JP 2002053564	A2	20020219	JP 2001-121188	20010419
US 2004110951	A1	20040610	US 2003-617436	20030711
PRAI US 2000-199044P	20000421			
US 2001-836765	20010417			

GI



AB R1Z1Z2ZR [R = 3,4-dioxothiazolidin-5-ylmethyl, 3,5-dioxo[1,2,4]oxadiazolidin-2-ylmethyl, etc.; R1 = OH, alkoxy, acyloxy, etc.; Z, Z1 = e.g., (un)substituted 1,4-phenylene; Z2 = O, SO0-2, CH2, CO, (alkyl)imino, etc.] were prepared as thyroid receptor ligands (no data). Thus, [3,4-(Me2HC)(MeO)C6H3]2IBF4 was etherified by 3,5,4-Cl2(HO)C6H3CO2Et and the reduced product condensed with 2,4-thiazolidinedione to give, in 3 addnl. steps, title compound I.

ST thiazolidinedione hydroxyphenoxybenzyl prepn thyroid receptor ligand; antiobesity agent thiazolidinedione hydroxyphenoxybenzyl prepn

IT Antiobesity agents  
(preparation of [(hydroxyphenoxy)benzyl]thiazolidinediones and analogs as thyroid receptor ligands)

IT Thyroid gland  
(receptors; preparation of [(hydroxyphenoxy)benzyl]thiazolidinediones and analogs as thyroid receptor ligands)

IT 322472-21-9P 322472-23-1P 367953-20-6P, 5-[3,5-Dichloro-4-(4-hydroxy-3-isopropylphenoxy)benzyl]thiazolidine-2,4-dione 367953-21-7P  
367953-22-8P 367953-23-9P 367953-24-0P 367953-25-1P 367953-27-3P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of [(hydroxyphenoxy)benzyl]thiazolidinediones and analogs as thyroid receptor ligands)

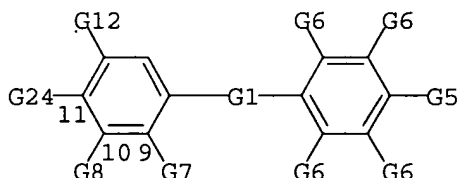
IT 765-30-0, Cyclopropylamine 1426-58-0 2295-31-0, 2,4-Thiazolidinedione 2516-34-9, Cyclobutylamine 17302-82-8, 3,5-Dichloro-4-hydroxybenzoic acid ethyl ester 24603-68-7, [1,2,4]Oxadiazolidine-3,5-dione 156740-76-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of [(hydroxyphenoxy)benzyl]thiazolidinediones and analogs as thyroid receptor ligands)

IT 219692-19-0P 367953-28-4P 367953-29-5P 367953-30-8P 367953-31-9P  
367953-32-0P 367953-33-1P 367953-34-2P 367953-35-3P 367953-36-4P  
367953-37-5P 367953-38-6P 367953-39-7P 367953-40-0P 367953-41-1P  
367953-42-2P 367953-43-3P 367953-45-5P 367953-46-6P 367953-47-7P  
367953-48-8P 367953-49-9P 367953-50-2P 367953-51-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of [(hydroxyphenoxy)benzyl]thiazolidinediones and analogs as thyroid receptor ligands)

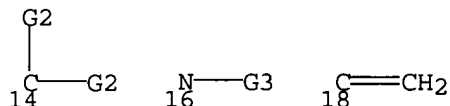
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

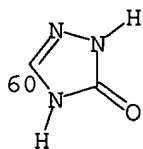
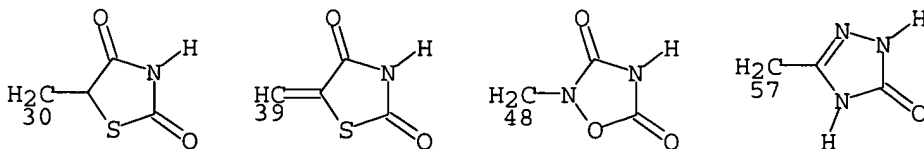
- (1) Adir; EP 0528734 A 1993 CAPLUS
- (2) Anon; PATENT ABSTRACTS OF JAPAN 1992, V016(273), PC-0953
- (3) de Nanteuil, G; ARZNEIM-FORSCH 1995, V45(11), P1176 CAPLUS
- (4) Dow, R; J MED CHEM 1991, V34(5), P1538 CAPLUS
- (5) Ebisawa, M; BIOL PHARM BULL 1998, V21(5), P547 CAPLUS
- (6) Ebisawa, M; CHEM PHARM BULL 1999, V47(9), P1348 CAPLUS
- (7) Hedfors Asa; WO 9900353 A 1999 CAPLUS
- (8) Institute Of Medicinal Molecular Design Inc; WO 9924415 A 1999 CAPLUS
- (9) Institute Of Medicinal Molecular Design Inc; EP 1048659 A 2000 CAPLUS
- (10) Iyaku Bunshi Sekkei Kenkyusho K K; JP 2001031660 A 2001 CAPLUS
- (11) Lilly Co Eli; EP 0587377 A 1994 CAPLUS
- (12) Maxia Pharmaceuticals Inc; WO 0116123 A 2001 CAPLUS
- (13) Sankyo Co; EP 0549365 A 1993 CAPLUS
- (14) Yamanouchi Pharma Co Ltd; EP 0597102 A 1994 CAPLUS
- (15) Yamanouchi Pharmaceut Co Ltd; JP 04066579 A 1992 CAPLUS
- (16) Yamashita, Y; WO 0102377 A 2001 CAPLUS

**MSTR 1A**

G1 = O / S / S(O) / SO<sub>2</sub> / 14 / C(O) / CHOH / NH / 16 / 18

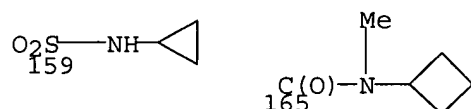


G2 = H / F  
 G3 = alkyl<(1-6)> (SO (1) G4)  
 G4 = cycloalkyl<(3-6)> / OMe  
 G5 = 30 / 39 / 48 / 57 / 60



G6 = (2-) H / F / Cl / Br / I / alkyl<(1-8)> / CF<sub>3</sub> /  
 OCF<sub>3</sub> / alkoxy<(1-8)> / CN / (SC Me)  
 G7 = H / F / Cl / Br / I / alkyl<(1-8)> / CF<sub>3</sub> / OCF<sub>3</sub> /

76 O—G13 80 G15—G16 82 83 G17—G18 92 C(O)—O—G16 95 G21—G22 106 C(O)—G23



78 C(O)-G14

$${}_{84}^{210}\text{Po} \rightarrow {}_{84}^{206}\text{Pb} + {}_2^4\text{He}$$

Page 111

<sup>86</sup>G19-G16

G19 = NH / 88

<sup>88</sup>N-G16

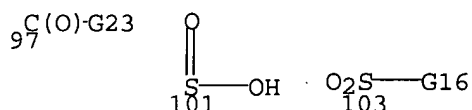
G20 = O / NH / 90

<sup>90</sup>N-G3

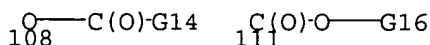
G21 = NH / 99

<sup>99</sup>N-G3

G22 = 97 / 101 / 103



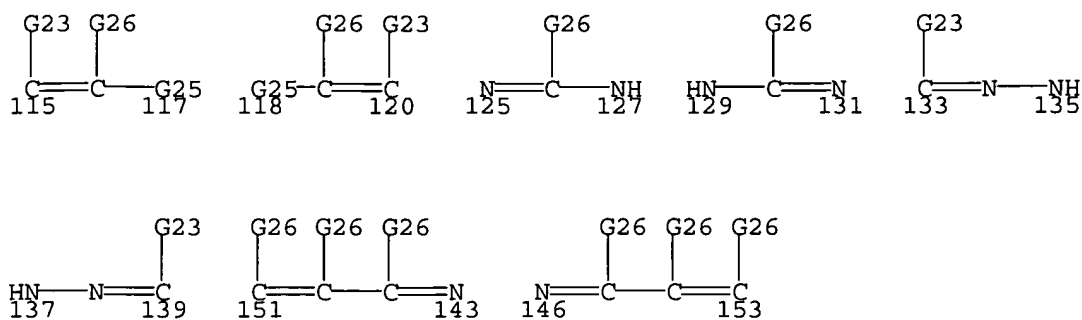
G23 = H / alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
 alkynyl<(2-12)> / Ph. (SO) / naphthyl (SO) /  
 heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
 Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 AR (0), BD (0-) D, RC (1-2)> (SO)  
 G24 = OH / alkoxy<(1-6)> / 108 / F / CO2H / 111 / (SC OMe)



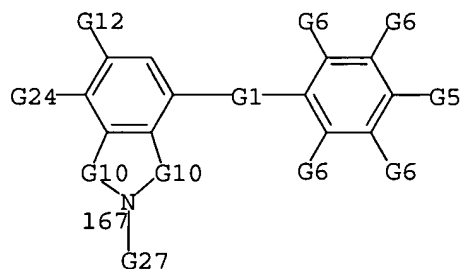
G25 = NH / O / S  
 G26 = H / alkyl<(1-6)> (SO (1) G4)  
 G7 +G8 = G9 / 73-9 75-10

<sup>73</sup>G10-G11-G10

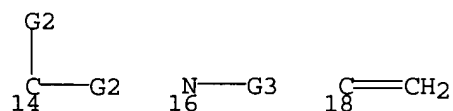
G8 +G24= 115-10 117-11 / 118-10 120-11 / 125-10 127-11 /  
 129-10 131-11 / 133-10 135-11 / 137-10 139-11 /  
 151-10 143-11 / 146-10 153-11



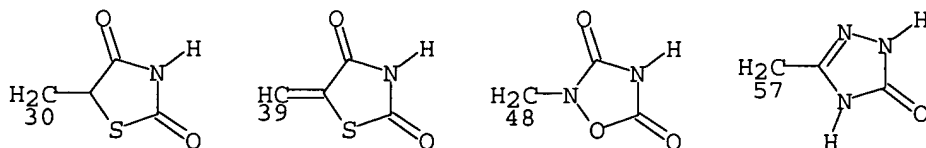
MPL: claim 1  
 NTE: and prodrugs and pharmaceutically acceptable salts  
 NTE: substitution is restricted  
 NTE: additional oxo substitution also claimed  
 STE: and stereoisomers

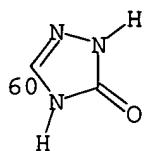
**MSTR 1B**

G1 = O / S / S(O) / SO<sub>2</sub> / 14 / C(O) / CHOH / NH / 16 / 18

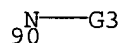


G2 = H / F  
 G3 = alkyl<(1-6)> (SO (1) G4)  
 G4 = cycloalkyl<(3-6)> / OMe  
 G5 = 30 / 39 / 48 / 57 / 60

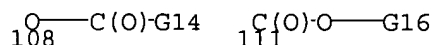




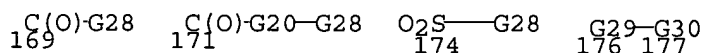
G6 = (2-) H / F / Cl / Br / I / alkyl<(1-8)> / **CF3** /  
OCF3 / alkoxy<(1-8)> / CN / (SC Me)  
G10 = (0-5) CH2 (SO)  
G12 = H / F / Cl / Br / I / alkyl<(1-8)> / CF3 / OCF3 /  
alkoxy<(1-8)> / CN  
G14 = alkyl<(1-10)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-10)> / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
Ph (SO) / naphthyl (SO) / heteroaryl<EC (1-3) Q (0-) N (0-)  
O (0-) S (0) OTHERQ, RC (1-2)> (SO) /  
Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
AR (0), BD (0-) D, RC (1-2)> (SO)  
G16 = alkyl<(1-12)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-12)> / Ph (SO) / naphthyl (SO) /  
heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
RC (1-2)> (SO) / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
AR (0), BD (0-) D, RC (1-2)> (SO)  
G20 = O / NH / 90



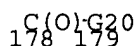
G24 = OH / alkoxy<(1-6)> / 108 / F / CO2H / 111 / (SC OMe)



G27 = H / CN / alkyl<(1-10)> (SO) / alkenyl<(2-10)> /  
alkoxy<(2-10)> / Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) /  
Ph / naphthyl / Cb<EC (6-10) C, AR (1-), BD (ALL) N,  
RC (1-2), RS (1-2) E6 (0) OTHER> (SO) /  
heteroaryl<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
RC (1-2)> (SO) / 169 / 171 / 174 / 176



G28 = alkyl<(1-10)> (SO) / alkenyl<(2-12)> /  
alkynyl<(2-10)>  
G29 = C(O) / 178-167 179-177 / SO2



G30 = Cb<EC (3-10) C, AR (0), BD (0-) D> (SO) / Ph /  
naphthyl / Cb<EC (6-10) C, AR (1-), BD (ALL) N, RC (1-2),  
RS (1-2) E6 (0) OTHER> (SO) / heteroaryl<EC (1-3) Q (0-)

N (0-) O (0-) S (0) OTHERQ, RC (1-2)> (SO) /  
 Hy<EC (5-9) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 AR (0), BD (0-) D, RC (1-2)> (SO)

MPL: claim 1  
 NTE: and prodrugs and pharmaceutically acceptable salts  
 NTE: substitution is restricted  
 NTE: additional oxo substitution also claimed  
 STE: and stereoisomers

L28 ANSWER 9 OF 10 MARPAT COPYRIGHT 2005 ACS on STN

AN 131:332116 MARPAT

TI Heterocyclic analogs of diphenylethylene compounds for the treatment of diabetes

IN Neogi, Partha; Nag, Bishwajit; Medicherla, Satyanarayana; Dey, Debendranath

PA Calyx Therapeutics, Inc., USA

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-425

CC 1-10 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958127	A1	19991118	WO 1999-US9982	19990507
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6245814	B1	20010612	US 1998-74925	19980508
	CA 2295599	AA	19991118	CA 1999-2295599	19990507
	AU 9939741	A1	19991129	AU 1999-39741	19990507
	AU 751235	B2	20020808		
	EP 1007039	A1	20000614	EP 1999-922836	19990507
	EP 1007039	B1	20040303		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
	JP 2002514598	T2	20020521	JP 2000-547978	19990507
	AT 260906	E	20040315	AT 1999-922836	19990507
	HK 1028348	A1	20040903	HK 2000-107853	20001207
PRAI	US 1998-74925		19980508		
	US 1999-287237		19990406		
	WO 1999-US9982		19990507		
AB	Diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties are provided which are effective in lowering blood glucose level, serum insulin, triglyceride and free fatty acid levels in animal models of Type II diabetes. In contrast to previously reported thiazolidine compds., known to lower leptin levels, the present compds. increase leptin levels and have no known liver toxicity.				
ST	diphenylethylene thiazolidinedione oxazolidinedione deriv antidiabetic				
IT	Hemoglobins				
	RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological				



study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(glycohemoglobins; heterocyclic analogs of diphenylethylene compds. for treatment of diabetes)

IT Antidiabetic agents

Drug delivery systems

Hypolipemic agents

(heterocyclic analogs of diphenylethylene compds. for treatment of diabetes)

IT Fatty acids, biological studies

Glycerides, biological studies

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(heterocyclic analogs of diphenylethylene compds. for treatment of diabetes)

IT 249886-47-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(heterocyclic analogs of diphenylethylene compds. for treatment of diabetes)

IT 50-99-7, D-Glucose, biological studies 9004-10-8, Insulin, biological studies 169494-85-3, Leptin

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(heterocyclic analogs of diphenylethylene compds. for treatment of diabetes)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

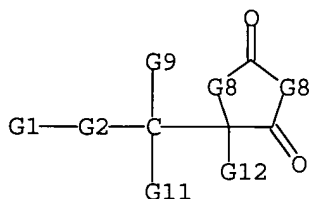
RE

(1) Klaus; US 5250562 A 1993 CAPLUS

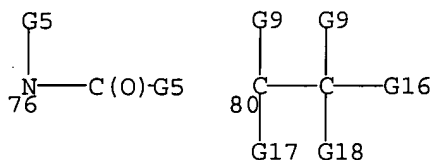
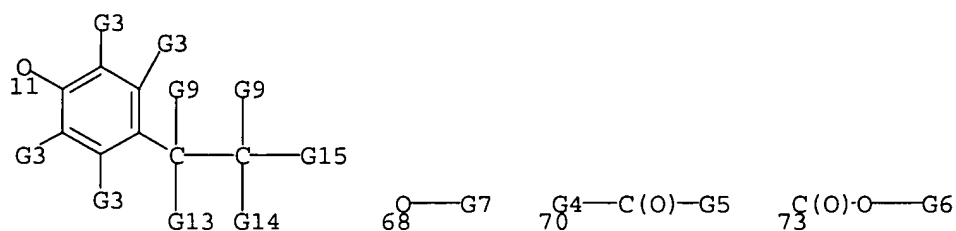
(2) Klaus; US 5378705 A 1995 CAPLUS

(3) Treacy; US 5246936 A 1993 CAPLUS

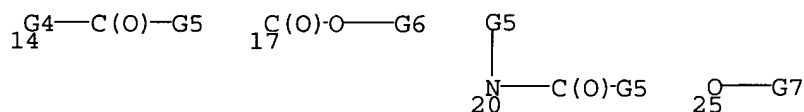
#### MSTR 1



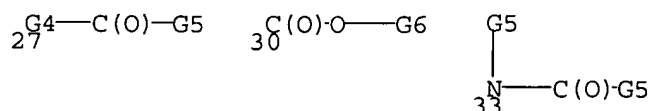
G1 = 11 / H / OH / 70 / alkylcarbonyl<(1-19)> / CHO /  
 73 / alkoxy<(1-20)> / alkylamino<(1-20)> / 76 / CO2H / CN /  
 X / OH / 68 / 80



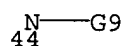
G2 = **phenylene** (SR (1-) G3)  
 G3 = H / 14 / **alkylcarbonyl**<(1-19)> / CHO / 17 /  
 alkoxy<(1-20)> / alkylamino<(1-20)> / 20 / CO2H / CN / X /  
 OH / 25 / (SC OMe)



G4 = O / NH  
 G5 = H / alkyl<(1-20)> / alkenyl<(2-20)>  
 G6 = alkyl<(1-20)> / alkenyl<(2-20)>  
 G7 = 27 / **alkylcarbonyl**<(1-19)> / CHO /  
 alkenylcarbonyl<(2-20)> / 30 / alkoxy<(1-20)> /  
 alkylamino<(1-20)> / 33 / **arylcarbonyl** / **aralkylcarbonyl** /  
 CO2H / CN / X / OH



G8 = **44** / O / S

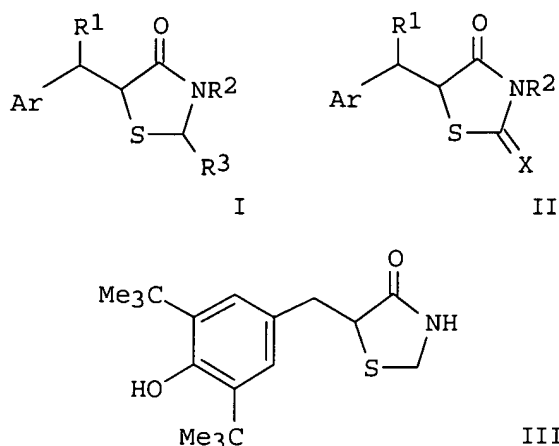


G9 = H / R / (SC CO2Me)  
 G11 = H  
 G12 = H  
 G13 = H  
 G14 = H  
 G15 = Ph (SR (1-) G3)  
 G16 = Ph (SR (1-) G3)  
 G17 = H

G18 = H  
 G11+G12= NULL  
 G13+G14= NULL  
 G17+G18= NULL  
 MPL: claim 1

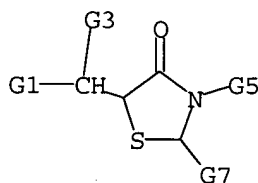
L28 ANSWER 10 OF 10 MARPAT COPYRIGHT 2005 ACS on STN  
 AN 126:251153 MARPAT  
 TI Process for preparing benzyl-substituted rhodanine derivatives  
 IN Copp, James Densmore; Ginah, Francis Oreronyo; Hansen, Marvin Martin;  
 Kjell, Douglas Patton; Slattery, Brian James  
 PA Eli Lilly and Co., USA  
 SO Eur. Pat. Appl., 13 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C07D277-14  
 ICS C07C323-60  
 CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 761657	A1	19970312	EP 1996-306338	19960902
	EP 761657	B1	20000524		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	AT 193284	E	20000615	AT 1996-306338	19960902
	ES 2146837	T3	20000816	ES 1996-306338	19960902
	CA 2230993	AA	19970313	CA 1996-2230993	19960903
	WO 9709305	A1	19970313	WO 1996-US14101	19960903
	W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9669113	A1	19970327	AU 1996-69113	19960903
	AU 704720	B2	19990429		
	CN 1201451	A	19981209	CN 1996-198097	19960903
	CN 1073094	B	20011017		
	BR 9610392	A	19990706	BR 1996-10392	19960903
	JP 11514977	T2	19991221	JP 1996-511327	19960903
	TR 9903176	T2	20000321	TR 1999-9903176	19960903
	NZ 337361	A	20000825	NZ 1996-337361	19960903
	SG 84520	A1	20011120	SG 1999-1063	19960903
	US 6005142	A	19991221	US 1998-29476	19980225
	NO 9800937	A	19980304	NO 1998-937	19980304
	NO 309604	B1	20010226		
	HK 1013821	A1	20010316	HK 1998-115185	19981223
	US 6201127	B1	20010313	US 1999-329468	19990610
	GR 3034157	T3	20001130	GR 2000-401852	20000808
PRAI	US 1995-3343P		19950907		
	NZ 1996-316799		19960903		
	WO 1996-US14101		19960903		
	US 1998-29476		19980225		
OS	CASREACT 126:251153				
GI					

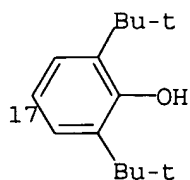


- AB Rhodanine derivs. I [Ar = (un)substituted Ph, 1-, 2-naphthyl; R1 = H, alkyl, alkylphenyl, (un)substituted Ph; R2 = H, alkyl, CH<sub>2</sub>Ph, CHMePh; R3 = H, alkyl, (un)substituted Ph, 1-, 2-naphthyl] were prepared via reaction of thiazolidinones II (X = S, NH, O) with R<sub>3</sub>CHO in the presence of R<sub>6</sub>NH<sub>2</sub> (R<sub>6</sub> = H, alkyl, CH<sub>2</sub>Ph, CHMePh). Thus, thiazolidinone III was prepared via condensation of 4,3,5-HO(Me<sub>3</sub>C)2C<sub>6</sub>H<sub>2</sub>CHO with 2,4-thiazolidinedione, hydrogenation and reaction with formalin in MeOH containing NH<sub>3</sub>. ArCHR<sub>1</sub>CH(SR<sub>5</sub>)CONHR<sub>2</sub> [R<sub>5</sub> = H, CH(OH)R<sub>3</sub>] were also prepared
- ST rhodanine benzyl deriv prepn; thiazolidinone condensation aldehyde
- IT 1620-98-0 2295-31-0, 2,4-Thiazolidinedione 107902-68-1
- RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of benzylrhodanine derivs. via condensation of thiazolidinones with aldehydes)
- IT 127378-46-5P 188532-19-6P 188532-26-5P
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of benzylrhodanine derivs. via condensation of thiazolidinones with aldehydes)
- IT 107902-67-0P 188532-21-0P 188532-24-3P
- RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of benzylrhodanine derivs. via condensation of thiazolidinones with aldehydes)

MSTR 1



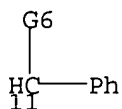
G1 = Ph (SO (1-3) G2) / naphthyl / (SC 17)



G2 = alkyl<(1-8)> / alkenyl<(2-6)> / alkynyl<(2-6)> /  
24 / CF<sub>3</sub> / Ph (SO alkyl<(1-4)>) / F / Cl / OH /  
dialkylamino<(1-6)>

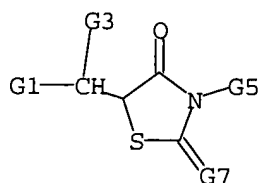
<sup>G8</sup>—G9  
24

G3 = H / alkyl<(1-6)> / Ph (SO (1-2) G4)  
G4 = Cl / F / alkyl<(1-4)> / alkoxy<(1-4)> / CF<sub>3</sub> /  
dialkylamino<(1-4)> / alkylthio<(1-4)>  
G5 = H / alkyl<(1-6)> / 11

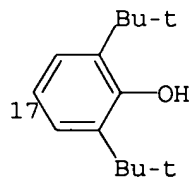


G6 = H / Me  
G7 = H / alkyl<(1-6)> / Ph (SO (1-3) G2) / naphthyl  
G8 = O / S  
G9 = alkyl<(1-8)> / Ph (SO alkyl<(1-4)>)  
MPL: claim 1

## MSTR 2



G1 = Ph (SO (1-3) G2) / naphthyl / (SC 17)



G2 = alkyl<(1-8)> / alkenyl<(2-6)> / alkynyl<(2-6)> /  
24 / CF<sub>3</sub> / Ph (SO alkyl<(1-4)>) / F / Cl / OH /  
dialkylamino<(1-6)>

G8—G9  
24

G3 = H / alkyl<(1-6)> / Ph (SO (1-2) G4)  
G4 = Cl / F / alkyl<(1-4)> / alkoxy<(1-4)> / CF3 /  
dialkylamino<(1-4)> / alkylthio<(1-4)>  
G5 = H / alkyl<(1-6)> / 11

G6  
|  
HC—Ph  
11

G6 = H / Me  
G7 = S / NH / O  
G8 = O / S  
G9 = alkyl<(1-8)> / Ph (SO alkyl<(1-4)>)  
MPL: claim 1

MSTR 3

G7—CHO

G2 = alkyl<(1-8)> / alkenyl<(2-6)> / alkynyl<(2-6)> /  
24 / CF3 / Ph (SO alkyl<(1-4)>) / F / Cl / OH /  
dialkylamino<(1-6)>

G8—G9  
24

G7 = H / alkyl<(1-6)> / Ph (SO (1-3) G2) / naphthyl  
G8 = O / S  
G9 = alkyl<(1-8)> / Ph (SO alkyl<(1-4)>)  
MPL: claim 1

MSTR 4

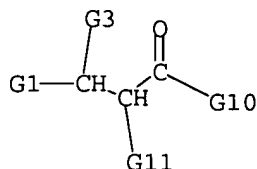
H<sub>2</sub>N—G5

G5 = H / alkyl<(1-6)> / 11

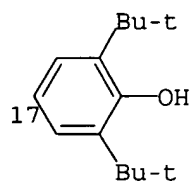
G6  
|  
HC—Ph  
11

G6 = H / Me  
MPL: claim 1

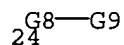
MSTR 5



G1 = Ph (SO (1-3) G2) / naphthyl / (SC 17)



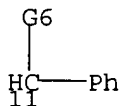
G2 = alkyl<(1-8)> / alkenyl<(2-6)> / alkynyl<(2-6)> /  
24 / CF3 / Ph (SO alkyl<(1-4)>) / F / Cl / OH /  
dialkylamino<(1-6)>



G3 = H / alkyl<(1-6)> / Ph (SO (1-2) G4)

G4 = Cl / F / alkyl<(1-4)> / alkoxy<(1-4)> / CF3 /  
dialkylamino<(1-4)> / alkylthio<(1-4)>

G5 = alkyl<(1-6)> / 11



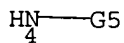
G6 = H / Me

G7 = H / alkyl<(1-6)> / Ph (SO (1-3) G2) / naphthyl

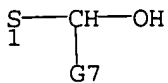
G8 = O / S

G9 = alkyl<(1-8)> / Ph (SO alkyl<(1-4)>)

G10 = NH2 / 4



G11 = SH / 1



MPL: claim 5



=> d ibib abs hitstr l10 1-1

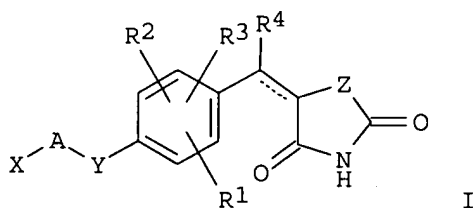
L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:589256 HCAPLUS  
 DOCUMENT NUMBER: 141:140764  
 TITLE: Preparation of amino acid phenoxy ethers as inhibitors of cytokines  
 INVENTOR(S): Nag, Bishwajit; Nag, Abhijeet; Dey, Debendranath; Agarwal, Shiv Kumar  
 PATENT ASSIGNEE(S): Bexel Pharmaceuticals, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 47 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004142991	A1	20040722	US 2003-356113	20030131
US 6794401	B2	20040921		
WO 2004066964	A2	20040812	WO 2004-US790	20040113
WO 2004066964	C2	20040902		
WO 2004066964	A3	20050224		

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MZ, MZ, NA, NI

PRIORITY APPLN. INFO.: US 2003-440772P P 20030117  
 US 2003-356113 A 20030131

OTHER SOURCE(S): MARPAT 141:140764  
 GI



AB Novel amino acid **Ph ethers**, e.g. tyrosine **Ph ethers**, or tautomeric forms, stereoisomers, polymorphs, pharmaceutically acceptable salts, or pharmaceutically acceptable solvates thereof [I; wherein the dotted line represents an optional double bond; Y = O, S, NR (wherein R represents hydrogen or alkyl); Z = O, S; R1-R4 = H, halogen, HO, nitro, cyano, formyl, amino, alkyl, alkoxy; A = a bond or substituted or unsubstituted aryl, heterocyclyl or heteroaryl ring; X = an alpha aminocarboxylic acid or alpha aminocarboxylic acid derivative bonded to A or Y through its alpha side chain] are prepared Also provided are a method for reducing glucose, free fatty acids, cholesterol, or triglyceride levels in plasma,. These compds. inhibit cytokines such as TNF $\alpha$ , IL-6, and IL-1 $\beta$  and exhibit activity for the treatment of

immunol. diseases mediated by cytokines, autoimmune diseases such as multiple sclerosis and rheumatoid arthritis, inflammation mediated by cyclooxygenase, obesity, hyperlipidemia, hypertension, neurol. diseases and diabetes, or a disorder associated with insulin resistance. Unlike other thiazolidine-compds. (TZD mols.), the compds. I exhibit no adipocyte differentiation, reduce body weight gain, and appear to have no affinity for PPAR-g and thereby are different from known TZD mols., which typically have adipocyte differentiation activity, increase weight gain, and are PPAR-g agonists. Thus, Me 2-[(tert-butoxycarbonyl)amino]-3-(4-hydroxyphenyl)propanoate was treated with NaH in DMF and etherified with 4-Fluorobenzaldehyde at 80° to give Me 2-[(tert-butoxycarbonyl)amino]-3-[-(4-formylphenoxy)phenyl]propanoate which was condensed with 2,4-thiazolidinedione in the presence of benzoic acid and piperidine at 145-155° under reflux with continuous removal of water using Dean-Stark apparatus for 5 h followed by treatment with HCl in CH<sub>2</sub>Cl<sub>2</sub> to give 5-[4-[4-(2-amino-2-methoxycarbonylethyl)phenoxy]benzylidene]thiazolidine-2,4-dione hydrochloride (II). Catalytic hydrogenation of II over Pd/C in methanol gave 5-[4-[4-(2-amino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione (III). III lowered pro-inflammatory cytokines in human macrophage cells and in an animal model of inflammation inhibited carrageenan-induced paw edema in SD rats.

IT 9004-10-8, Insulin, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (disorders associated with insulin resistance; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

RN 9004-10-8 HCAPLUS

CN Insulin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 39391-18-9, Cyclooxygenase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

RN 39391-18-9 HCAPLUS

CN Synthetase, prostaglandin endoperoxide (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 724760-26-3P, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzylidene]thiazolidine-2,4-dione

724760-27-4P, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzylidene]thiazolidine-2,4-dione

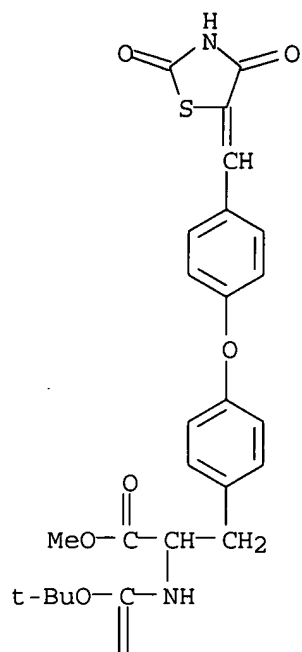
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(intermediate; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

RN 724760-26-3 HCAPLUS

CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

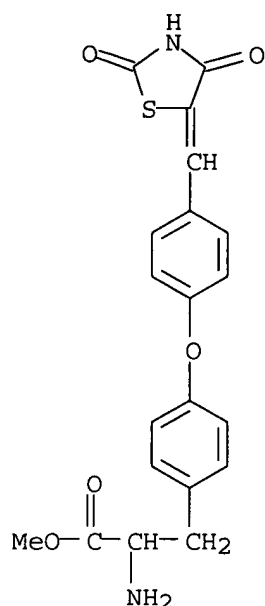
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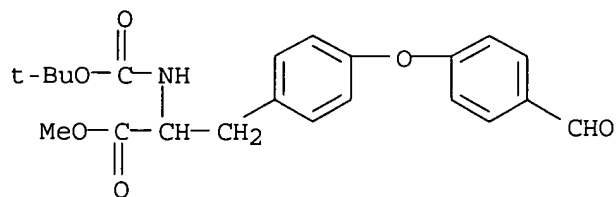
PAGE 2-A



RN 724760-27-4 HCAPLUS  
CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



- IT **724760-25-2P**, Methyl 2-[(tert-butoxycarbonyl)amino]-3-[4-(4-formylphenoxy)phenyl]propanoate  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)
- RN 724760-25-2 HCAPLUS
- CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-(4-formylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



- IT **724760-24-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione hydrochloride **724760-28-5P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione **724760-29-6P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzylidene]thiazolidine-2,4-dione **724760-30-9P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzyl]thiazolidine-2,4-dione **724760-31-0P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzylidene]oxazolidine-2,4-dione **724760-32-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzylidene]oxazolidine-2,4-dione **724760-33-2P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]benzyl]oxazolidine-2,4-dione **724760-34-3P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]benzyl]oxazolidine-2,4-dione **724760-35-4P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzylidene]oxazolidine-2,4-dione **724760-36-5P**,

5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzylidene]oxazolidine-2,4-dione **724760-37-6P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzyl]oxazolidine-2,4-dione **724760-38-7P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzyl]oxazolidine-2,4-dione **724760-39-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzylidene]thiazolidine-2,4-dione **724760-40-1P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzylidene]thiazolidine-2,4-dione **724760-41-2P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,6-difluorobenzyl]thiazolidine-2,4-dione **724760-42-3P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,6-difluorobenzyl]thiazolidine-2,4-dione **724760-43-4P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzylidene]thiazolidine-2,4-dione **724760-44-5P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzylidene]thiazolidine-2,4-dione **724760-45-6P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzyl]thiazolidine-2,4-dione **724760-46-7P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzyl]thiazolidine-2,4-dione **724760-47-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzylidene]oxazolidine-2,4-dione **724760-49-0P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzylidene]oxazolidine-2,4-dione **724760-50-3P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2,3-difluorobenzyl]oxazolidine-2,4-dione **724760-51-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2,3-difluorobenzyl]oxazolidine-2,4-dione **724760-52-5P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzylidene]oxazolidine-2,4-dione **724760-53-6P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzylidene]oxazolidine-2,4-dione **724760-55-8P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzyl]oxazolidine-2,4-dione **724760-56-9P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzyl]oxazolidine-2,4-dione **724760-58-1P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzylidene]thiazolidine-2,4-dione **724760-59-2P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzylidene]thiazolidine-2,4-dione **724760-60-5P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-methylbenzyl]thiazolidine-2,4-dione **724760-61-6P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-methylbenzyl]thiazolidine-2,4-dione **724760-62-7P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzylidene]thiazolidine-2,4-dione **724760-63-8P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzylidene]thiazolidine-2,4-dione **724760-64-9P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzyl]thiazolidine-2,4-dione **724760-65-0P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzyl]thiazolidine-2,4-dione **724760-66-1P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzylidene]oxazolidine-2,4-dione **724760-67-2P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzylidene]oxazolidine-2,4-dione **724760-68-3P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-nitrobenzyl]oxazolidine-2,4-dione **724760-69-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-nitrobenzyl]oxazolidine-2,4-dione **724760-70-7P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzylidene]thiazolidine-2,4-dione **724760-71-8P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzylidene]thiazolidine-2,4-dione **724760-72-9P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzyl]thiazolidine-2,4-

dione **724760-73-0P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzyl]thiazolidine-2,4-dione **724760-74-1P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzylidene]oxazolidine-2,4-dione **724760-75-2P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzylidene]oxazolidine-2,4-dione **724760-76-3P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-aminobenzyl]oxazolidine-2,4-dione **724760-77-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-aminobenzyl]oxazolidine-2,4-dione **724760-78-5P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzylidene]thiazolidine-2,4-dione **724760-79-6P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzylidene]thiazolidine-2,4-dione **724760-80-9P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzyl]thiazolidine-2,4-dione **724760-81-0P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzyl]thiazolidine-2,4-dione **724760-82-1P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzylidene]oxazolidine-2,4-dione **724760-83-2P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzylidene]oxazolidine-2,4-dione **724760-84-3P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-fluorobenzyl]oxazolidine-2,4-dione **724760-85-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-fluorobenzyl]oxazolidine-2,4-dione **724760-86-5P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzylidene]thiazolidine-2,4-dione **724760-87-6P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzylidene]thiazolidine-2,4-dione **724760-88-7P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzyl]thiazolidine-2,4-dione **724760-89-8P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzyl]thiazolidine-2,4-dione **724760-90-1P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzylidene]oxazolidine-2,4-dione **724760-91-2P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzylidene]oxazolidine-2,4-dione **724760-92-3P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-fluorobenzyl]oxazolidine-2,4-dione **724760-93-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-fluorobenzyl]oxazolidine-2,4-dione **724760-94-5P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzylidene]thiazolidine-2,4-dione **724760-95-6P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzylidene]thiazolidine-2,4-dione **724760-96-7P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzyl]thiazolidine-2,4-dione **724760-97-8P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzyl]thiazolidine-2,4-dione **724760-98-9P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzylidene]oxazolidine-2,4-dione **724760-99-0P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzylidene]oxazolidine-2,4-dione **724761-00-6P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-2-trifluoromethylbenzyl]oxazolidine-2,4-dione **724761-01-7P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-2-trifluoromethylbenzyl]oxazolidine-2,4-dione **724761-02-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzylidene]thiazolidine-2,4-dione **724761-03-9P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzylidene]thiazolidine-2,4-dione **724761-04-0P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzyl]thiazolidine-2,4-dione **724761-05-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzyl]thiazolidine-2,4-dione **724761-06-2P**, 5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-

trifluoromethylbenzylidene]oxazolidine-2,4-dione **724761-07-3P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)phenoxy]-3-  
trifluoromethylbenzylidene]oxazolidine-2,4-dione **724761-08-4P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)phenoxy]-3-trifluoromethylbenzyl]oxazolidi-  
ne-2,4-dione **724761-09-5P**, 5-[4-[4-(2-Amino-2-  
methoxycarbonylethyl)phenoxy]-3-trifluoromethylbenzyl]oxazolidine-2,4-  
dione **724761-10-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,6-  
difluorophenoxy]benzylidene]oxazolidine-2,4-dione **724761-11-9P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,6-difluorophenoxy]benzylidene]o-  
xazolidine-2,4-dione **724761-12-0P**, 5-[4-[4-(2-Amino-2-  
carboxyethyl)-2,6-difluorophenoxy]benzyl]oxazolidine-2,4-dione  
**724761-13-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,6-  
difluorophenoxy]benzyl]oxazolidine-2,4-dione **724761-14-2P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)-2,6-difluorophenoxy]benzylidene]thiazolid-  
ine-2,4-dione **724761-15-3P**, 5-[4-[4-(2-Amino-2-  
methoxycarbonylethyl)-2,6-difluorophenoxy]benzylidene]thiazolidine-2,4-  
dione **724761-16-4P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,6-  
difluorophenoxy]benzyl]thiazolidine-2,4-dione **724761-17-5P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,6-difluorophenoxy]benzyl]thiazo-  
lidine-2,4-dione **724761-18-6P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-  
2,3-difluorophenoxy]benzylidene]thiazolidine-2,4-dione **724761-19-7P\*\***  
**\*** , 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,3-  
difluorophenoxy]benzylidene]thiazolidine-2,4-dione **\*\*\*724761-20-0P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)-2,3-difluorophenoxy]benzyl]thiazolidine-  
2,4-dione **724761-21-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-  
2,3-difluorophenoxy]benzyl]thiazolidine-2,4-dione **724761-22-2P**,  
5-[4-[4-(2-Amino-2-carboxyethyl)-2,3-difluorophenoxy]benzylidene]oxazolidi-  
ne-2,4-dione **724761-23-3P**, 5-[4-[4-(2-Amino-2-  
methoxycarbonylethyl)-2,3-difluorophenoxy]benzylidene]oxazolidine-2,4-  
dione **724761-24-4P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2,3-  
difluorophenoxy]benzyl]oxazolidine-2,4-dione **724761-25-5P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2,3-difluorophenoxy]benzyl]oxazol-  
idine-2,4-dione **724761-26-6P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-  
methylphenoxy]benzylidene]oxazolidine-2,4-dione **724761-27-7P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzylidene]oxazo-  
lidine-2,4-dione **724761-28-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-  
3-methylphenoxy]benzyl]oxazolidine-2,4-dione **724761-29-9P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzyl]oxazolidin-  
e-2,4-dione **724761-30-2P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-  
methylphenoxy]benzylidene]thiazolidine-2,4-dione **724761-31-3P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzylidene]thiaz-  
olidine-2,4-dione **724761-32-4P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-  
3-methylphenoxy]benzyl]thiazolidine-2,4-dione **724761-33-5P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-methylphenoxy]benzyl]thiazolidi-  
ne-2,4-dione **724761-34-6P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-  
nitrophenoxy]benzylidene]thiazolidine-2,4-dione **724761-35-7P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-nitrophenoxy]benzylidene]thiazo-  
lidine-2,4-dione **724761-36-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-  
3-nitrophenoxy]benzyl]thiazolidine-2,4-dione **724761-37-9P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-nitrophenoxy]benzyl]thiazolidin-  
e-2,4-dione **724761-38-0P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-  
nitrophenoxy]benzylidene]oxazolidine-2,4-dione **724761-39-1P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-nitrophenoxy]benzylidene]oxazol-  
idine-2,4-dione **724761-40-4P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-  
nitrophenoxy]benzyl]oxazolidine-2,4-dione **724761-41-5P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-nitrophenoxy]benzyl]oxazolidine-  
2,4-dione **724761-42-6P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-  
aminophenoxy]benzylidene]thiazolidine-2,4-dione **724761-43-7P**,  
5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-aminophenoxy]benzylidene]thiazo

lidine-2,4-dione **724761-44-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-aminophenoxy]benzyl]thiazolidine-2,4-dione **724761-45-9P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-aminophenoxy]benzyl]thiazolidine-2,4-dione **724761-46-0P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-aminophenoxy]benzylidene]oxazolidine-2,4-dione **724761-47-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-aminophenoxy]benzylidene]oxazolidine-2,4-dione **724761-48-2P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-aminophenoxy]benzyl]oxazolidine-2,4-dione **724761-49-3P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-aminophenoxy]benzyl]oxazolidine-2,4-dione **724761-50-6P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-fluorophenoxy]benzylidene]thiazolidine-2,4-dione **724761-51-7P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-fluorophenoxy]benzylidene]thiazolidine-2,4-dione **724761-52-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-fluorophenoxy]benzyl]thiazolidine-2,4-dione **724761-53-9P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-fluorophenoxy]benzyl]thiazolidine-2,4-dione **724761-54-0P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-fluorophenoxy]benzylidene]oxazolidine-2,4-dione **724761-55-1P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-fluorophenoxy]benzylidene]oxazolidine-2,4-dione **724761-56-2P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-fluorophenoxy]benzyl]oxazolidine-2,4-dione **724761-57-3P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-fluorophenoxy]benzyl]oxazolidine-2,4-dione **724761-58-4P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-fluorophenoxy]benzylidene]thiazolidine-2,4-dione **724761-59-5P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-fluorophenoxy]benzylidene]thiazolidine-2,4-dione **724761-60-8P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-fluorophenoxy]benzyl]thiazolidine-2,4-dione **724761-61-9P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-fluorophenoxy]benzyl]thiazolidine-2,4-dione **724761-63-1P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-fluorophenoxy]benzylidene]oxazolidine-2,4-dione **724761-64-2P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-fluorophenoxy]benzylidene]oxazolidine-2,4-dione **724761-65-3P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-fluorophenoxy]benzyl]oxazolidine-2,4-dione **724761-66-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-fluorophenoxy]benzyl]oxazolidine-2,4-dione **724761-67-5P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-trifluoromethylphenoxy]benzylidene]thiazolidine-2,4-dione **724761-68-6P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-trifluoromethylphenoxy]benzylidene]thiazolidine-2,4-dione **724761-69-7P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-trifluoromethylphenoxy]benzyl]thiazolidine-2,4-dione **724761-70-0P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-trifluoromethylphenoxy]benzyl]thiazolidine-2,4-dione **724761-71-1P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-trifluoromethylphenoxy]benzylidene]oxazolidine-2,4-dione **724761-72-2P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-trifluoromethylphenoxy]benzylidene]oxazolidine-2,4-dione **724761-73-3P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-2-trifluoromethylphenoxy]benzyl]oxazolidine-2,4-dione **724761-74-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-2-trifluoromethylphenoxy]benzyl]oxazolidine-2,4-dione **724761-75-5P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-trifluoromethylphenoxy]benzylidene]thiazolidine-2,4-dione **724761-76-6P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzylidene]thiazolidine-2,4-dione **724761-77-7P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-trifluoromethylphenoxy]benzyl]thiazolidine-2,4-dione **724761-78-8P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzyl]thiazolidine-2,4-dione **724761-79-9P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-trifluoromethylphenoxy]benzylidene]oxazolidine-2,4-dione **724761-80-2P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzylidene]oxazolidine-2,4-dione **724761-81-3P**, 5-[4-[4-(2-Amino-2-carboxyethyl)-3-

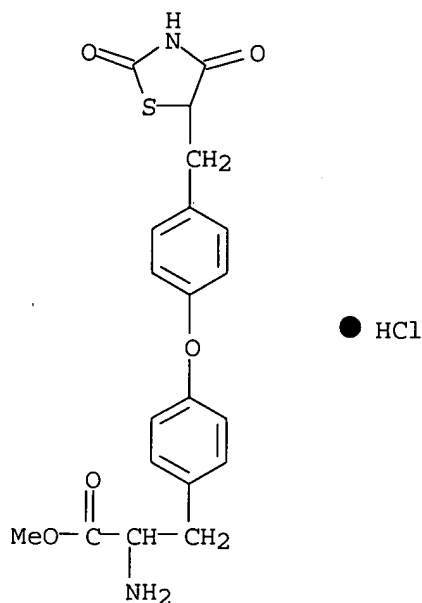


trifluoromethylphenoxy]benzyl]oxazolidine-2,4-dione **724761-82-4P**, 5-[4-[4-(2-Amino-2-methoxycarbonylethyl)-3-trifluoromethylphenoxy]benzyl]oxazolidine-2,4-dione **724761-83-5P**, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzyl]thiazolidine-2,4-dione **724761-84-6P**, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzylidene]oxazolidine-2,4-dione **724761-85-7P**, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-methoxycarbonylethyl)phenoxy]benzyl]oxazolidine-2,4-dione **724761-86-8P**, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzylidene]thiazolidine-2,4-dione **724761-87-9P**, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzyl]thiazolidine-2,4-dione **724761-88-0P**, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzylidene]oxazolidine-2,4-dione **724761-89-1P**, 5-[4-[4-(2-tert-Butoxycarbonylamino-2-carboxyethyl)phenoxy]benzyl]oxazolidine-2,4-dione  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of tyrosine thiazolidinylmethylphenyl ether derivs. for treatment of immunol. diseases, inflammation, obesity, hyperlipidemia, hypertension, neurol. diseases, and diabetes)

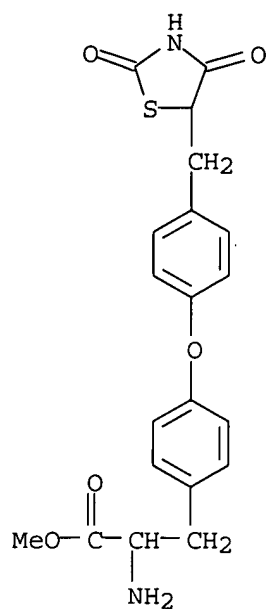
RN 724760-24-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



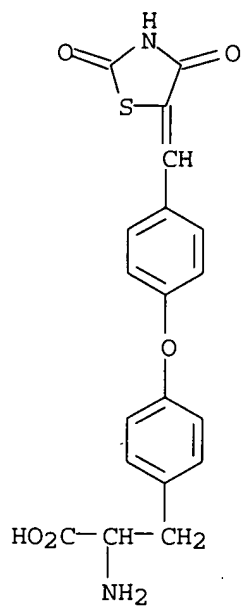
RN 724760-28-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



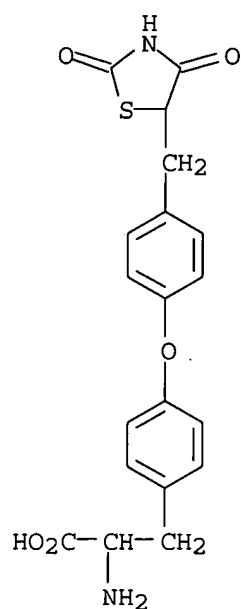
RN 724760-29-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]- (9CI) (CA INDEX NAME)



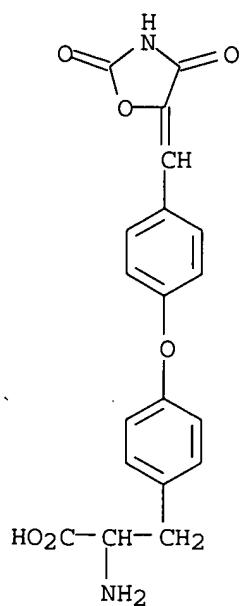
RN 724760-30-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]- (9CI) (CA INDEX NAME)



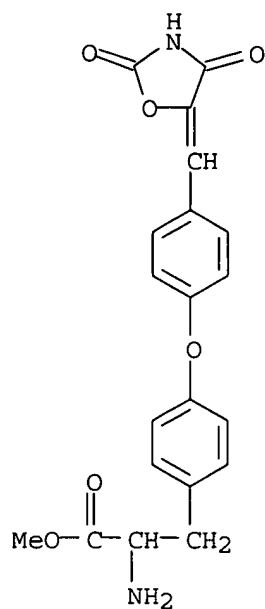
RN 724760-31-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]- (9CI) (CA INDEX NAME)



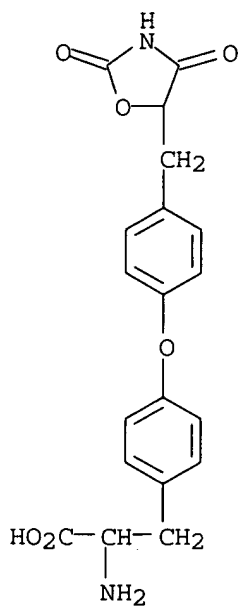
RN 724760-32-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



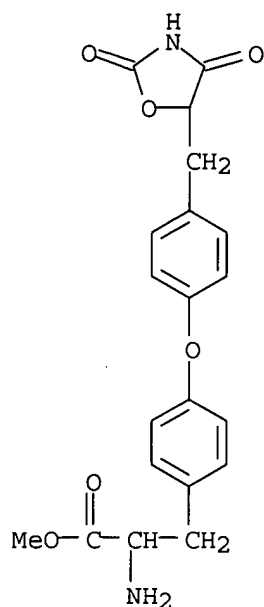
RN 724760-33-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]- (9CI) (CA INDEX NAME)



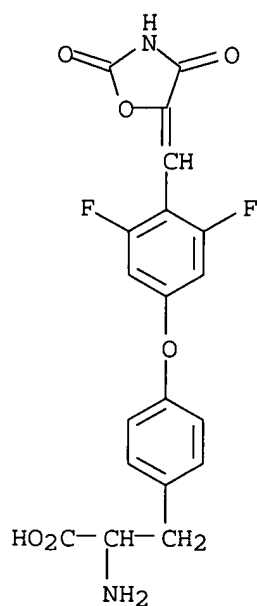
RN 724760-34-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



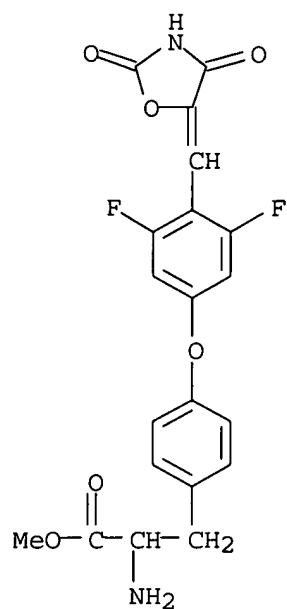
RN 724760-35-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-3,5-difluorophenyl]-  
(9CI) (CA INDEX NAME)



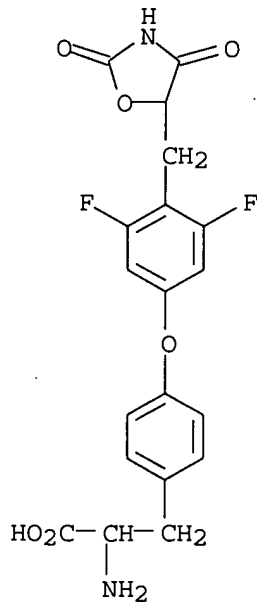
RN 724760-36-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-3,5-difluorophenyl]-  
, methyl ester (9CI) (CA INDEX NAME)



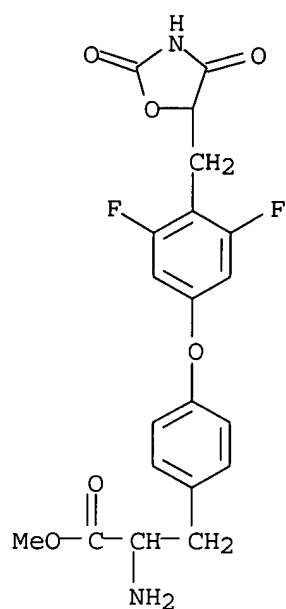
RN 724760-37-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-3,5-difluorophenyl]-  
(9CI) (CA INDEX NAME)



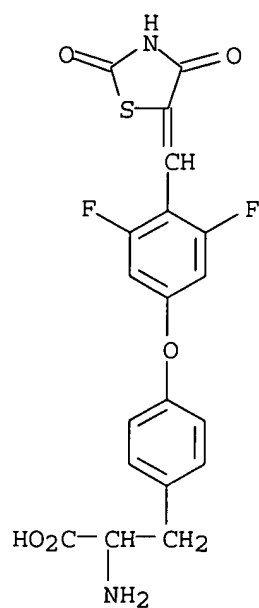
RN 724760-38-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-3,5-difluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



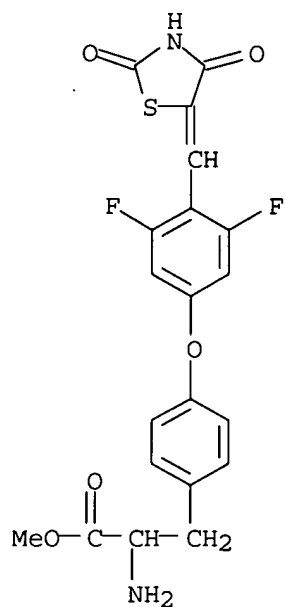
RN 724760-39-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-3,5-difluorophenyl]- (9CI) (CA INDEX NAME)



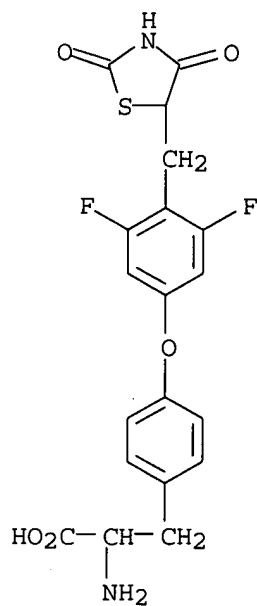
RN 724760-40-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-3,5-difluorophenyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 724760-41-2 HCAPLUS

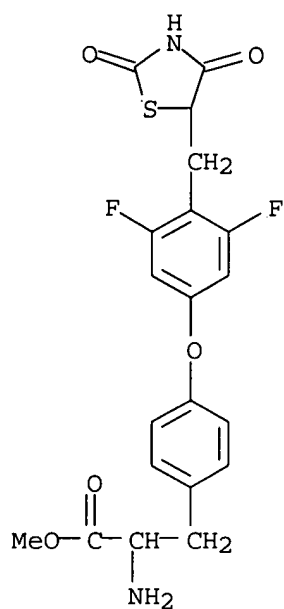
CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-3,5-difluorophenyl]-  
(9CI) (CA INDEX NAME)



RN 724760-42-3 HCAPLUS

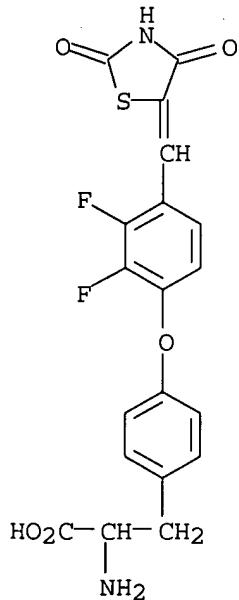
CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-3,5-difluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)





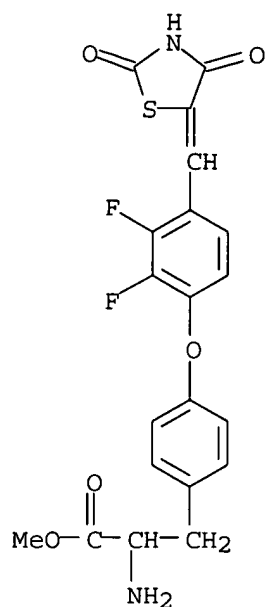
RN 724760-43-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2,3-difluorophenyl]- (9CI) (CA INDEX NAME)



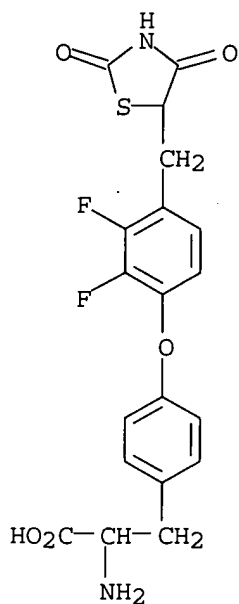
RN 724760-44-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2,3-difluorophenyl]-, methyl ester (9CI) (CA INDEX NAME)



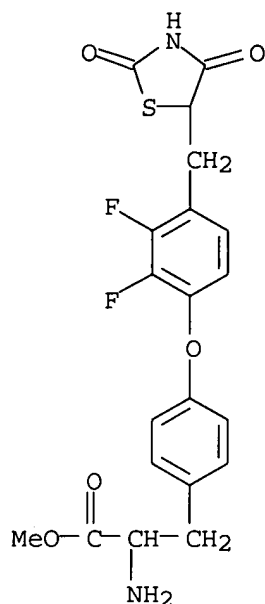
RN 724760-45-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2,3-difluorophenyl]-  
(9CI) (CA INDEX NAME)



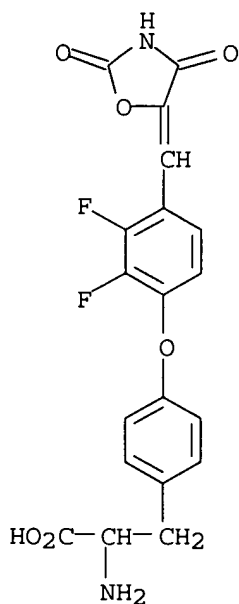
RN 724760-46-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2,3-difluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



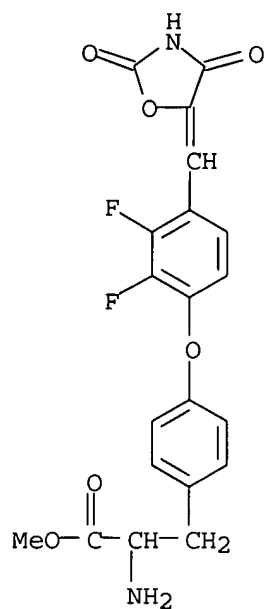
RN 724760-47-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2,3-difluorophenyl]-  
(9CI) (CA INDEX NAME)



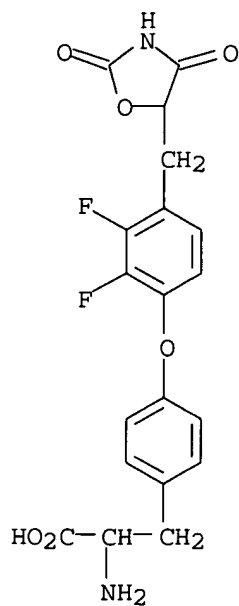
RN 724760-49-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2,3-difluorophenyl]-  
, methyl ester (9CI) (CA INDEX NAME)



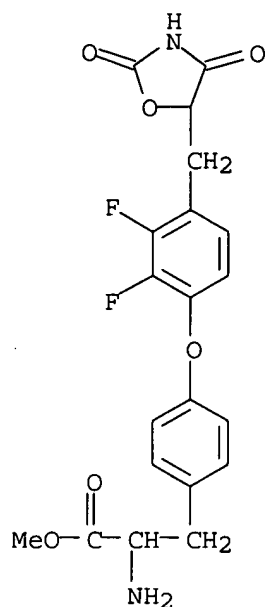
RN 724760-50-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2,3-difluorophenyl]-  
(9CI) (CA INDEX NAME)



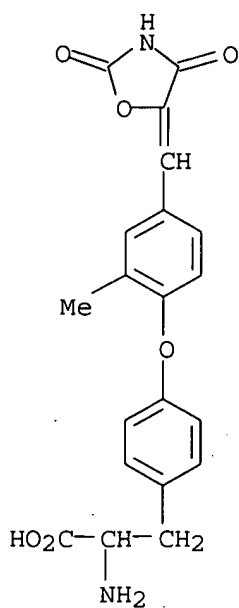
RN 724760-51-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2,3-difluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



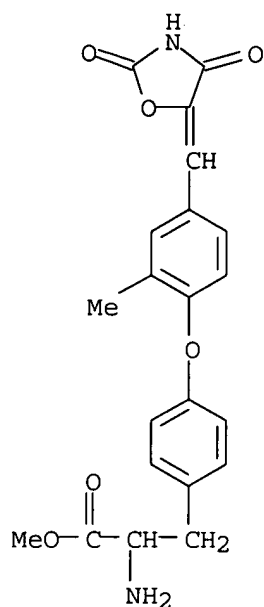
RN 724760-52-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2-methylphenyl]-  
(9CI) (CA INDEX NAME)



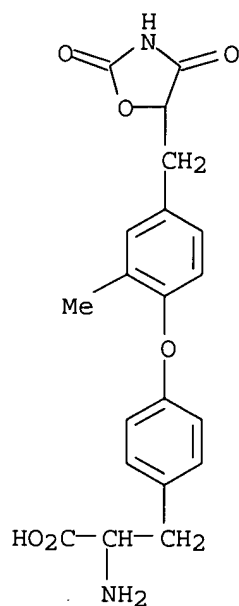
RN 724760-53-6 HCAPLUS

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methyl ester (9CI) (CA INDEX NAME)



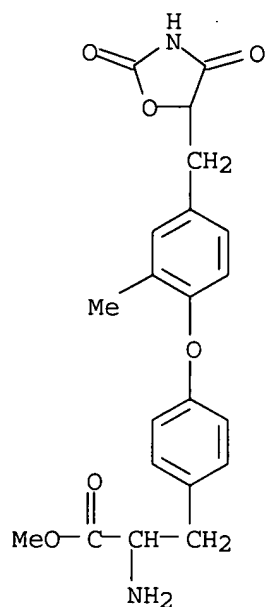
RN 724760-55-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-methylphenyl]- (9CI)  
(CA INDEX NAME)



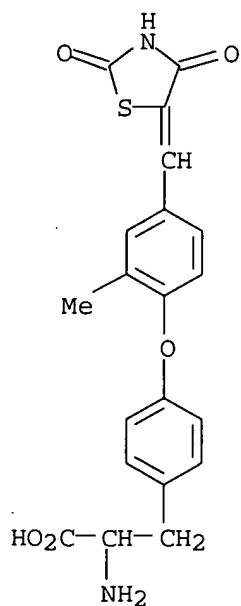
RN 724760-56-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-methylphenyl]-, methyl  
ester (9CI) (CA INDEX NAME)



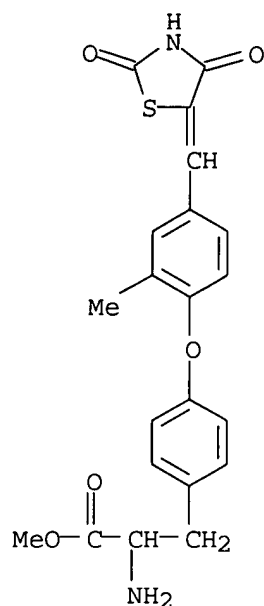
RN 724760-58-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-methylphenyl]-  
(9CI) (CA INDEX NAME)



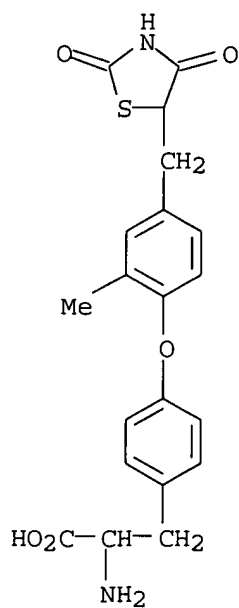
RN 724760-59-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-methylphenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



RN 724760-60-5 HCAPLUS

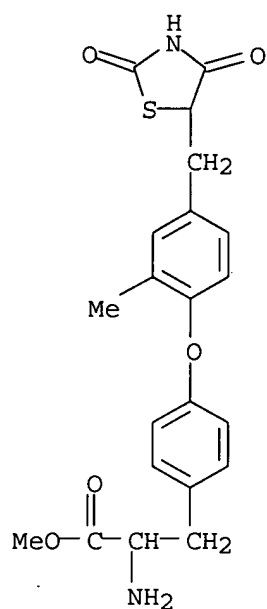
CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-methylphenyl]- (9CI)  
(CA INDEX NAME)



RN 724760-61-6 HCAPLUS

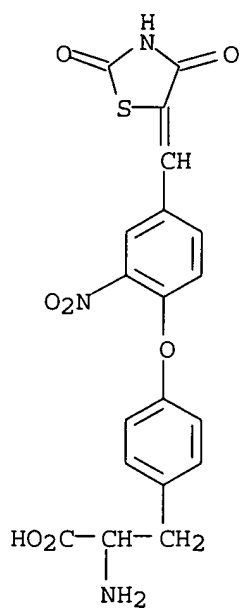
CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-methylphenyl]-, methyl ester (9CI) (CA INDEX NAME)





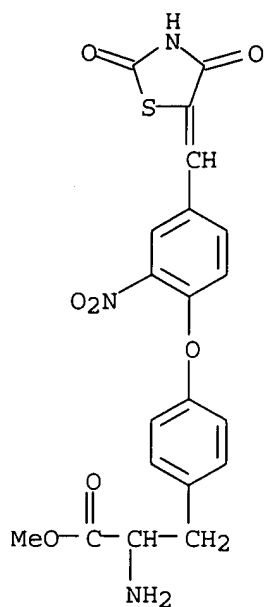
RN 724760-62-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-nitrophenyl]-  
(9CI) (CA INDEX NAME)



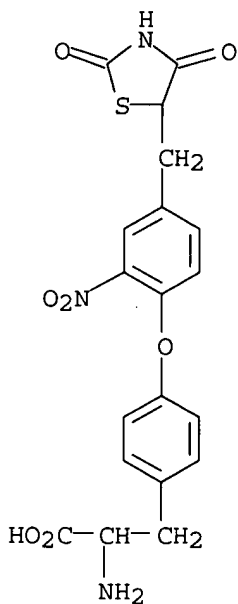
RN 724760-63-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-nitrophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



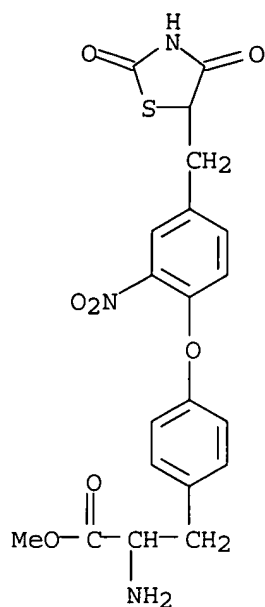
RN 724760-64-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-nitrophenyl]- (9CI)  
(CA INDEX NAME)



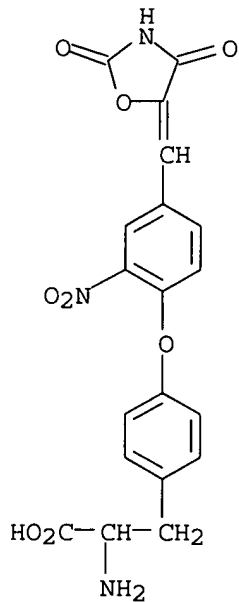
RN 724760-65-0 HCAPLUS

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ester (9CI) (CA INDEX NAME)



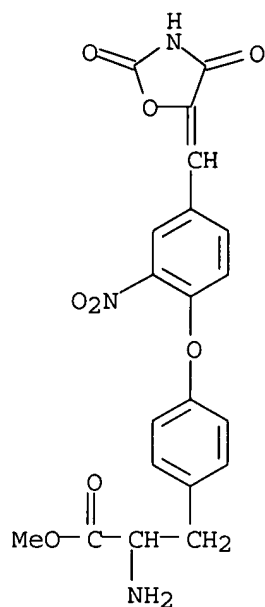
RN 724760-66-1 HCAPLUS

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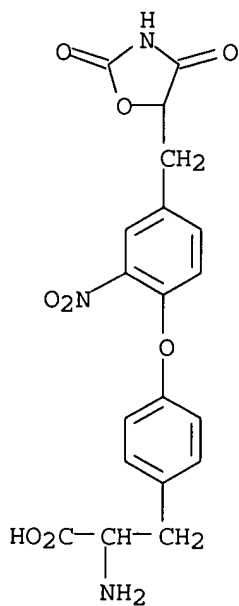
RN 724760-67-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2-nitrophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



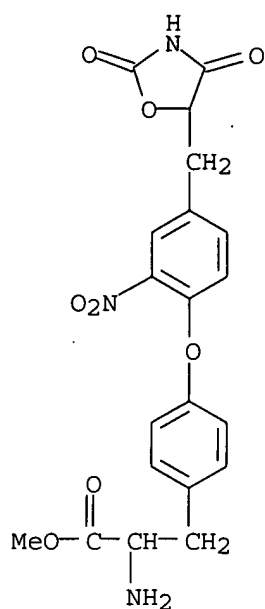
RN 724760-68-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-nitrophenyl]- (9CI)  
(CA INDEX NAME)



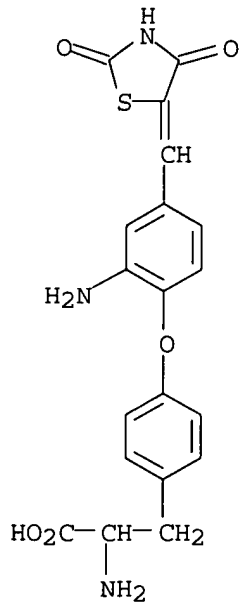
RN 724760-69-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-nitrophenyl]-, methyl  
ester (9CI) (CA INDEX NAME)



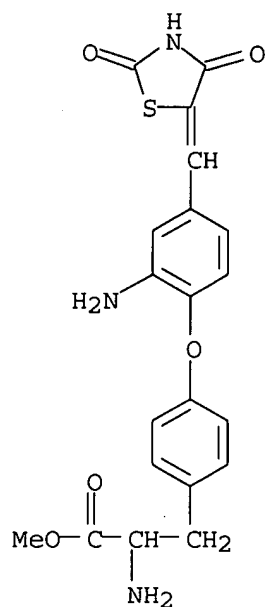
RN 724760-70-7 HCAPLUS

CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-, (9CI) (CA INDEX NAME)



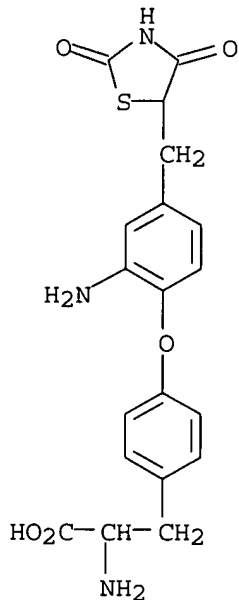
RN 724760-71-8 HCAPLUS

CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



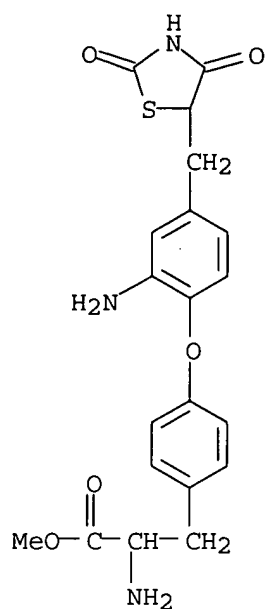
RN 724760-72-9 HCAPLUS

CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]- (9CI)  
(CA INDEX NAME)



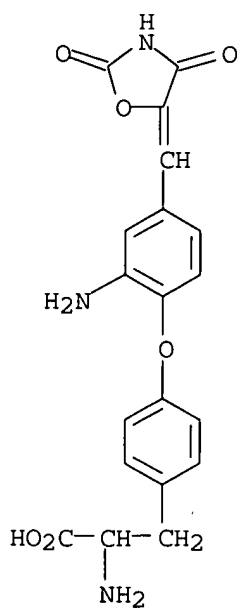
RN 724760-73-0 HCAPLUS

CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-, methyl  
ester (9CI) (CA INDEX NAME)



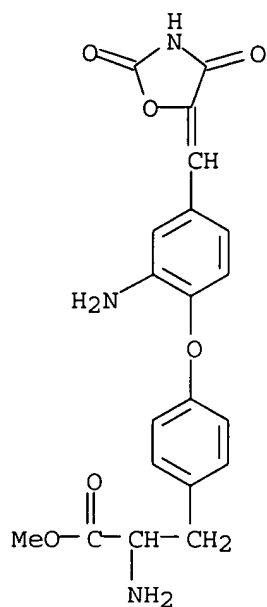
RN 724760-74-1 HCAPLUS

CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-  
(9CI) (CA INDEX NAME)



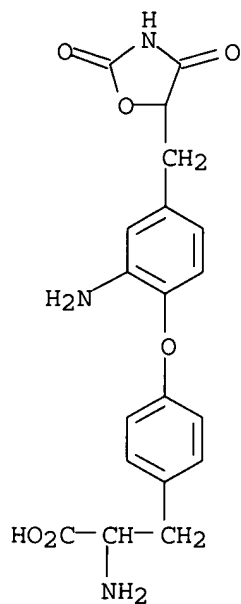
RN 724760-75-2 HCAPLUS

CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



RN 724760-76-3 HCAPLUS

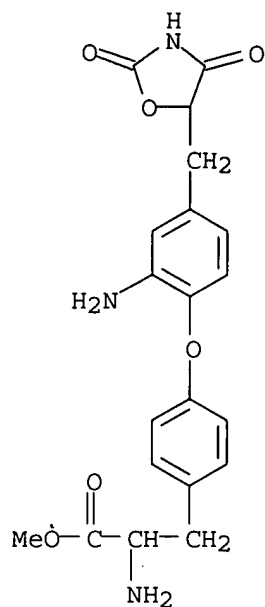
CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]- (9CI)  
(CA INDEX NAME)



RN 724760-77-4 HCAPLUS

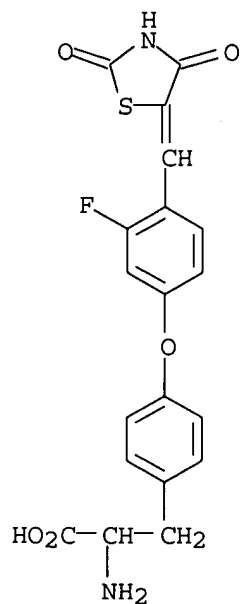
CN Tyrosine, O-[2-amino-4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-, methyl  
ester (9CI) (CA INDEX NAME)





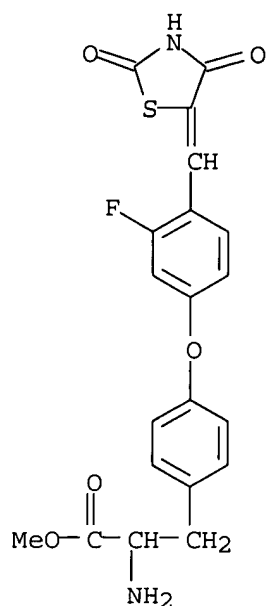
RN 724760-78-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-3-fluorophenyl]-  
(9CI) (CA INDEX NAME)



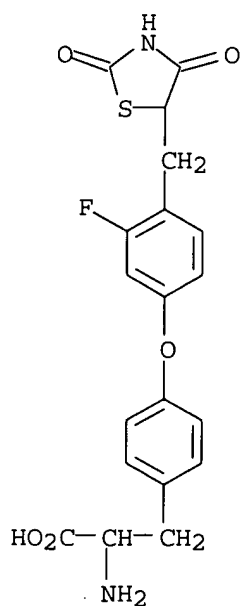
RN 724760-79-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-3-fluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



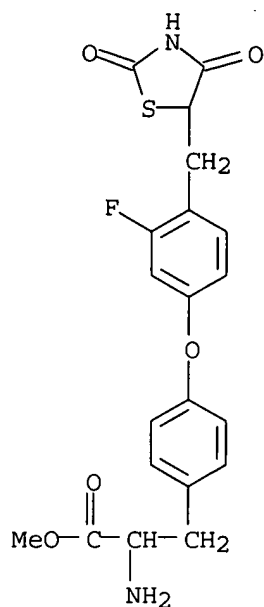
RN 724760-80-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-3-fluorophenyl]- (9CI)  
(CA INDEX NAME)



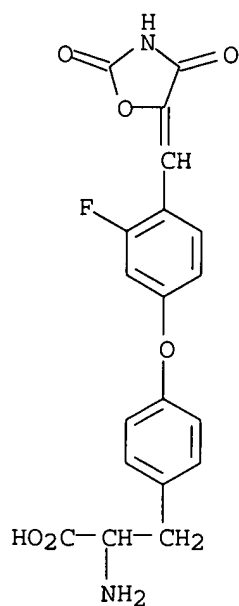
RN 724760-81-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-3-fluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



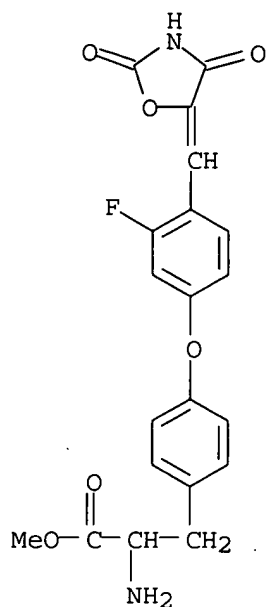
RN 724760-82-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-3-fluorophenyl]-  
(9CI) (CA INDEX NAME)



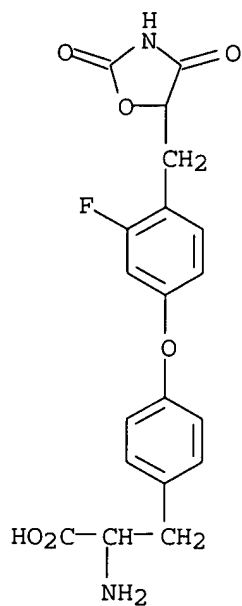
RN 724760-83-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-3-fluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



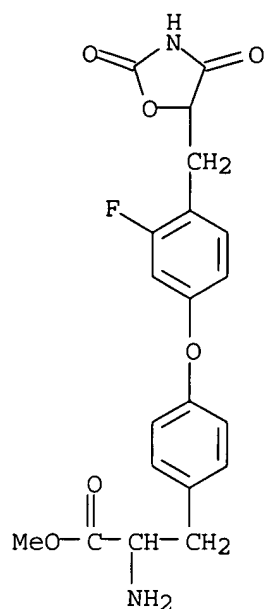
RN 724760-84-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-3-fluorophenyl]- (9CI)  
(CA INDEX NAME)



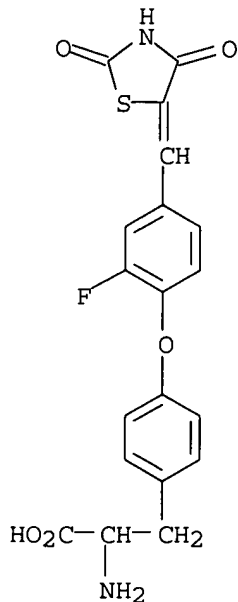
RN 724760-85-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-3-fluorophenyl]-, methyl  
ester (9CI) (CA INDEX NAME)



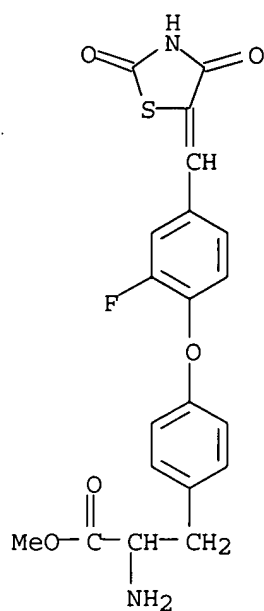
RN 724760-86-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-fluorophenyl]-  
(9CI) (CA INDEX NAME)



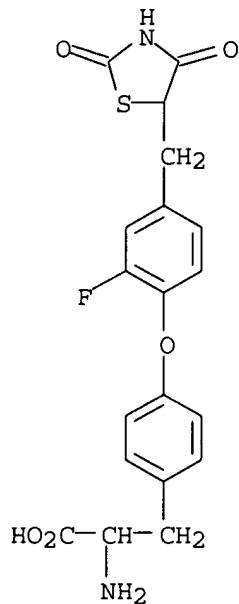
RN 724760-87-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-fluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



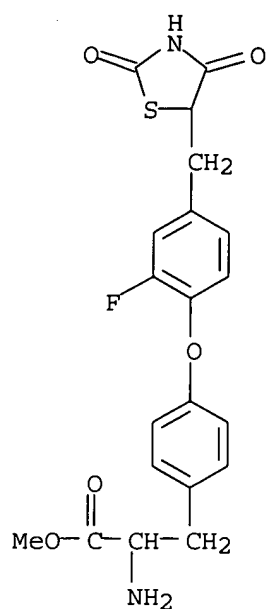
RN 724760-88-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-fluorophenyl]- (9CI)  
(CA INDEX NAME)



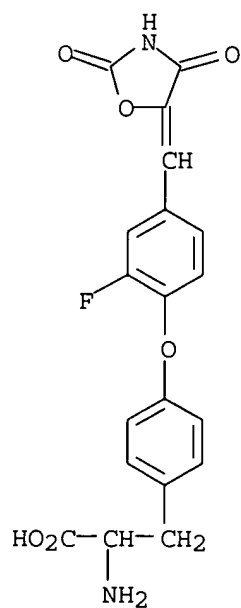
RN 724760-89-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-fluorophenyl]-, methyl ester (9CI) (CA INDEX NAME)



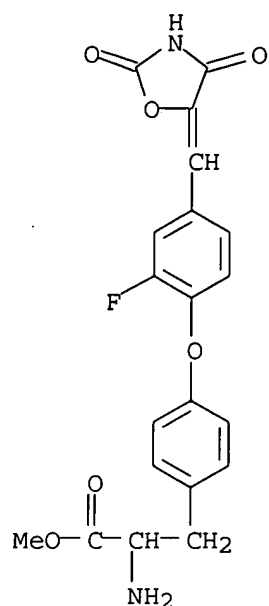
RN 724760-90-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2-fluorophenyl]-  
(9CI) (CA INDEX NAME)



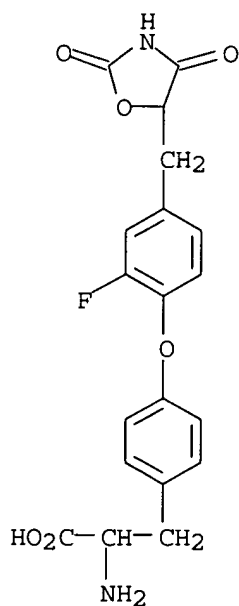
RN 724760-91-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2-fluorophenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



RN 724760-92-3 HCAPLUS

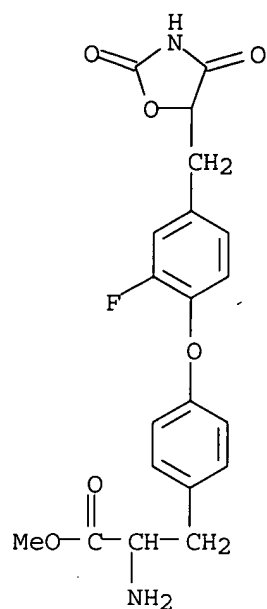
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-fluorophenyl]- (9CI)  
(CA INDEX NAME)



RN 724760-93-4 HCAPLUS

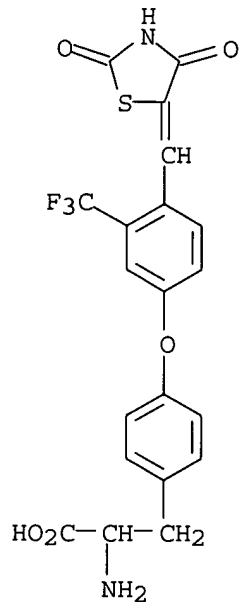
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-fluorophenyl]-, methyl  
ester (9CI) (CA INDEX NAME)





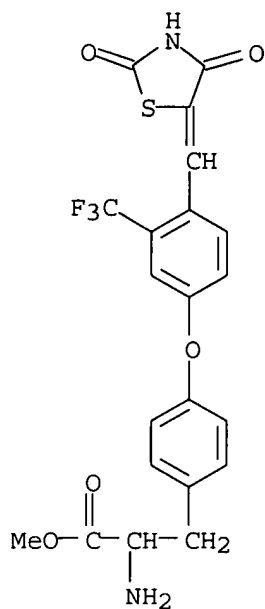
RN 724760-94-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



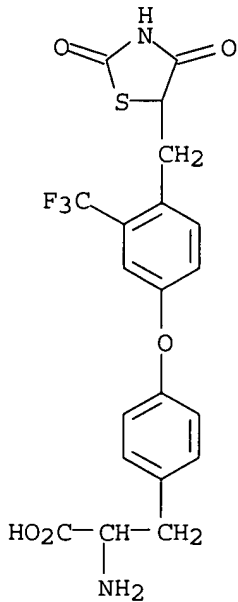
RN 724760-95-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-3-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



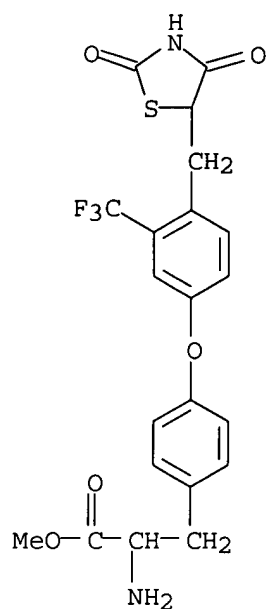
RN 724760-96-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



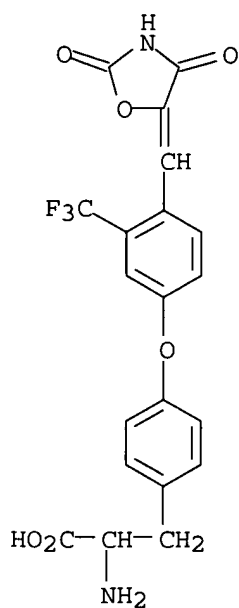
RN 724760-97-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-3-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



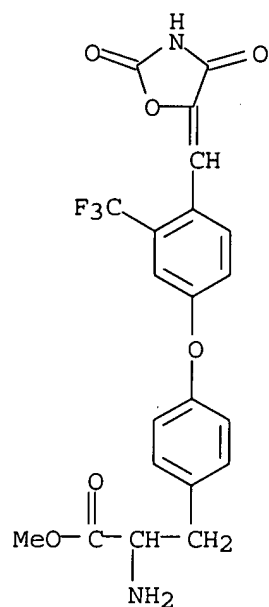
RN 724760-98-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



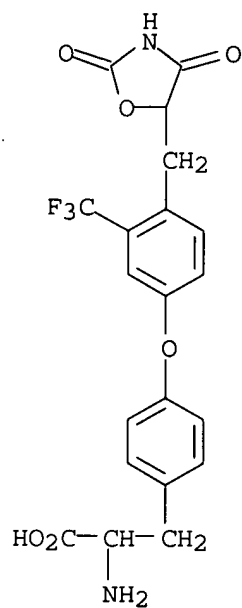
RN 724760-99-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-3-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



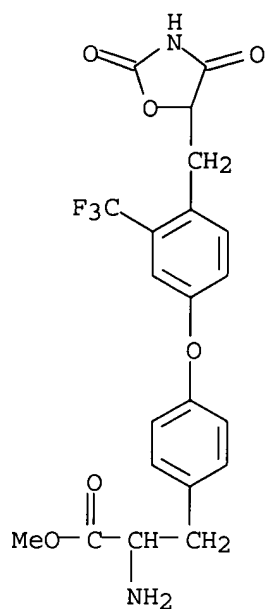
RN 724761-00-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



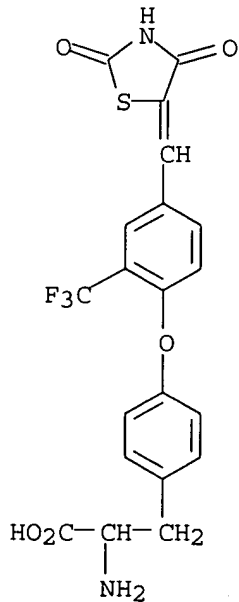
RN 724761-01-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-3-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



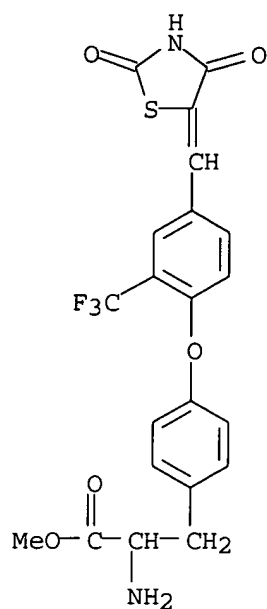
RN 724761-02-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-(trifluoromethyl)phenyl]-(9CI) (CA INDEX NAME)



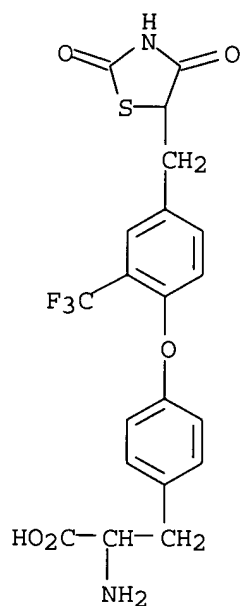
RN 724761-03-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]-2-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



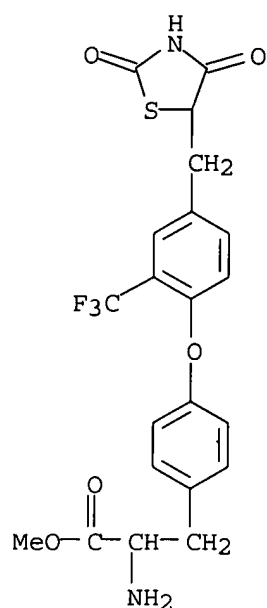
RN 724761-04-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



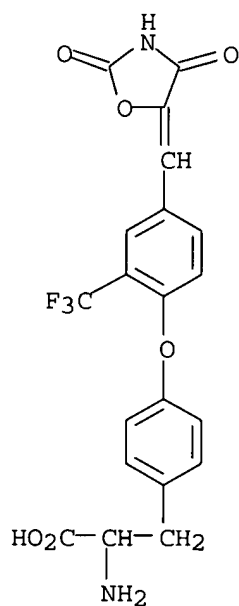
RN 724761-05-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]-2-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



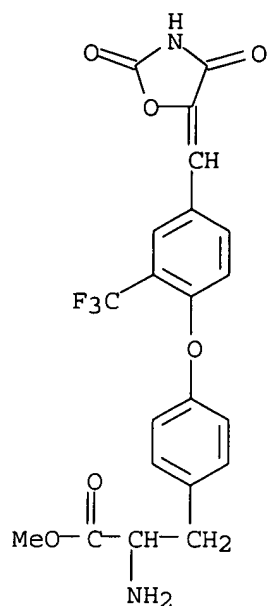
RN 724761-06-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2-(trifluoromethyl)phenyl]-(9CI) (CA INDEX NAME)



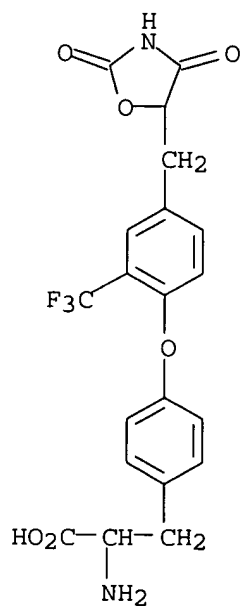
RN 724761-07-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]-2-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 724761-08-4 HCAPLUS

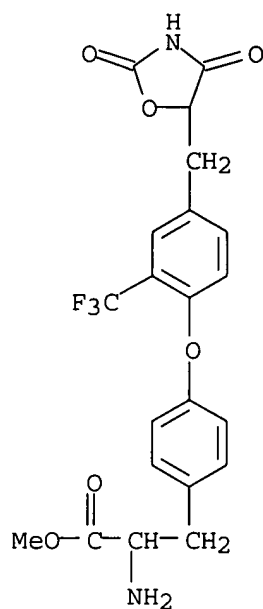
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-(trifluoromethyl)phenyl]-(9CI) (CA INDEX NAME)



RN 724761-09-5 HCAPLUS

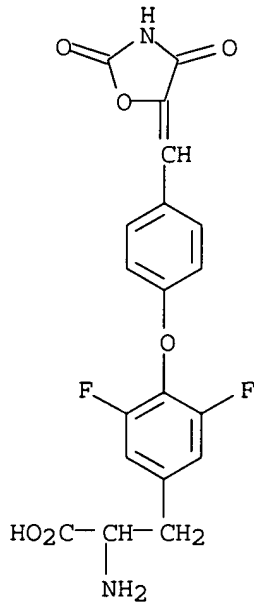
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]-2-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)





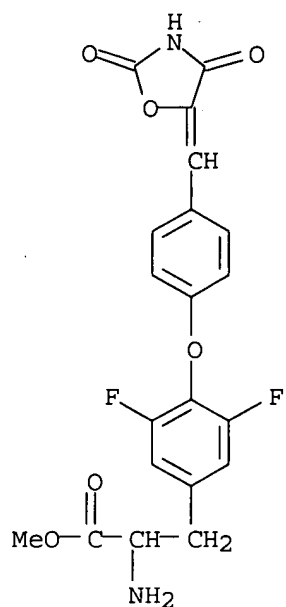
RN 724761-10-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-3,5-difluoro-  
(9CI) (CA INDEX NAME)



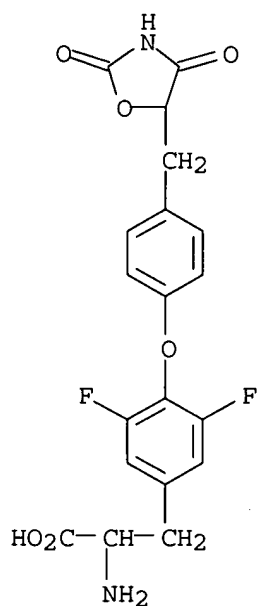
RN 724761-11-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-3,5-difluoro-  
, methyl ester (9CI) (CA INDEX NAME)



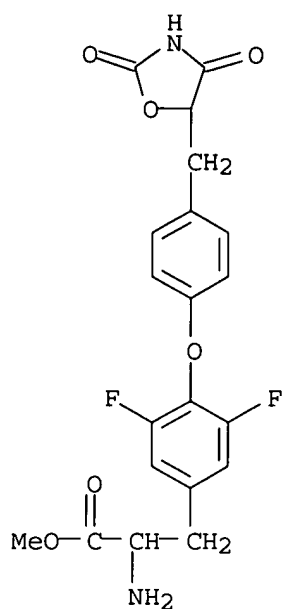
RN 724761-12-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-3,5-difluoro-  
(9CI) (CA INDEX NAME)



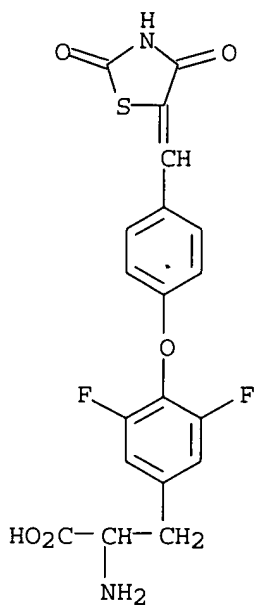
RN 724761-13-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-3,5-difluoro-,  
methyl ester (9CI) (CA INDEX NAME)



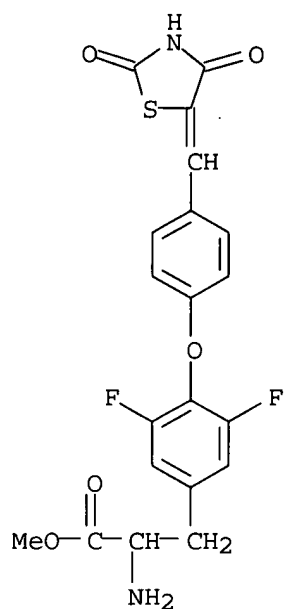
RN 724761-14-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-3,5-difluoro- (9CI) (CA INDEX NAME)



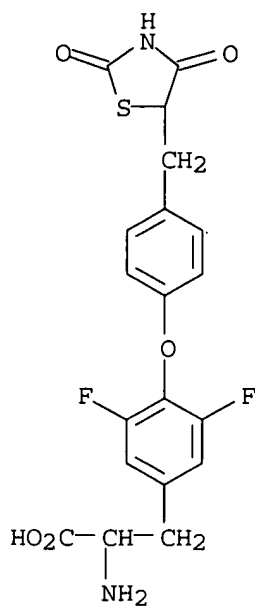
RN 724761-15-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-3,5-difluoro-, methyl ester (9CI) (CA INDEX NAME)



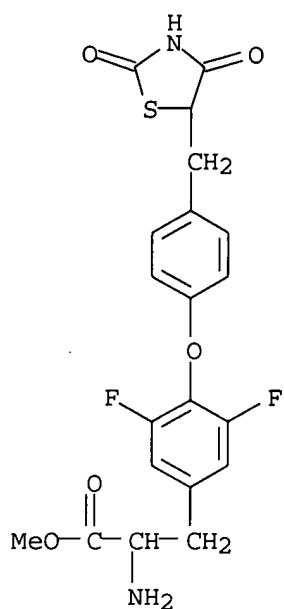
RN 724761-16-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-3,5-difluoro-  
(9CI) (CA INDEX NAME)



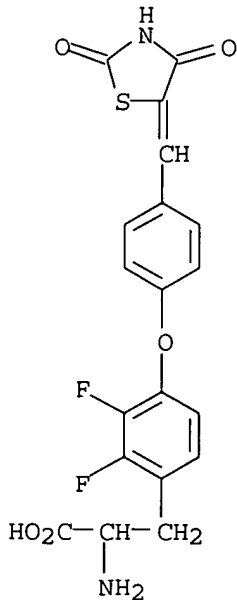
RN 724761-17-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-3,5-difluoro-,  
methyl ester (9CI) (CA INDEX NAME)



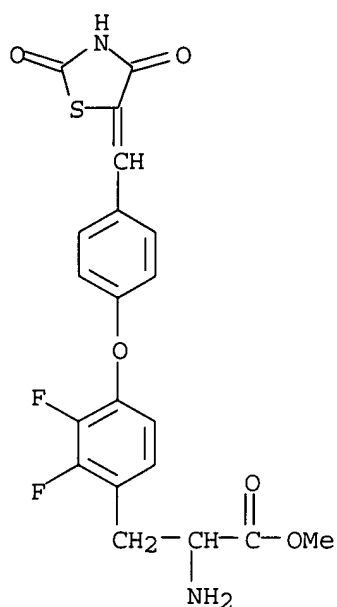
RN 724761-18-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2,3-difluoro- (9CI) (CA INDEX NAME)



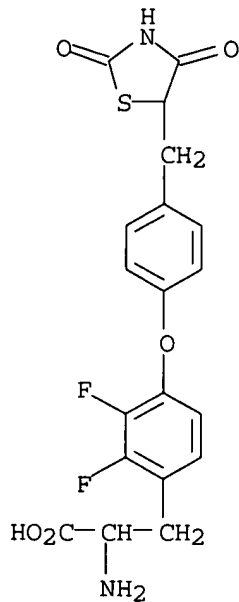
RN 724761-19-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2,3-difluoro-, methyl ester (9CI) (CA INDEX NAME)



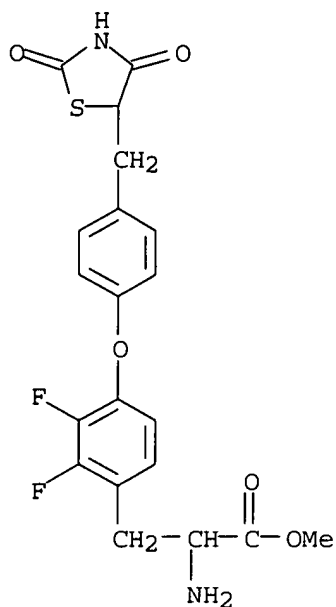
RN 724761-20-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2,3-difluoro-,  
(9CI) (CA INDEX NAME)



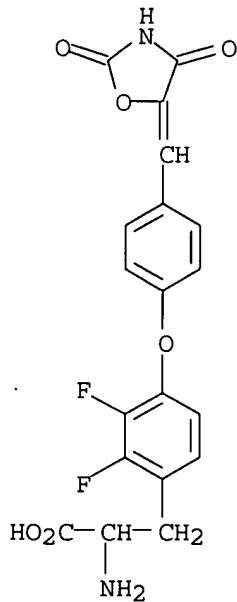
RN 724761-21-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2,3-difluoro-,  
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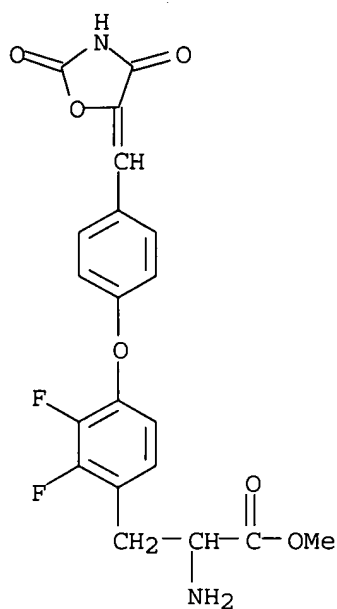
RN 724761-22-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2,3-difluoro-  
(9CI) (CA INDEX NAME)



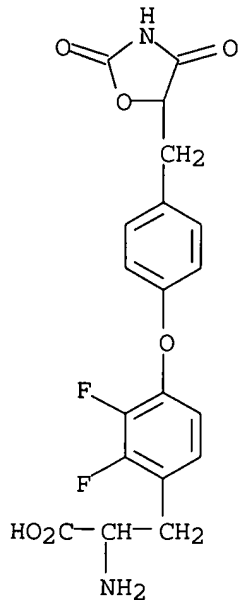
RN 724761-23-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2,3-difluoro-  
, methyl ester (9CI) (CA INDEX NAME)



RN 724761-24-4 HCAPLUS

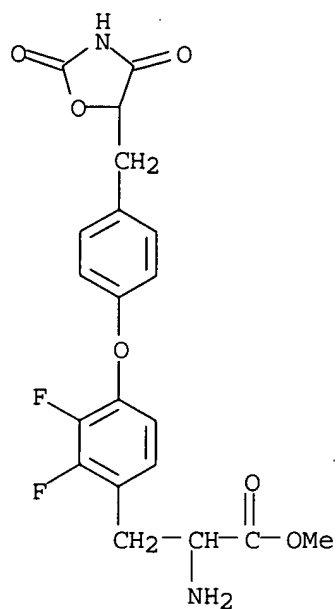
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2,3-difluoro-  
(9CI) (CA INDEX NAME)



RN 724761-25-5 HCAPLUS

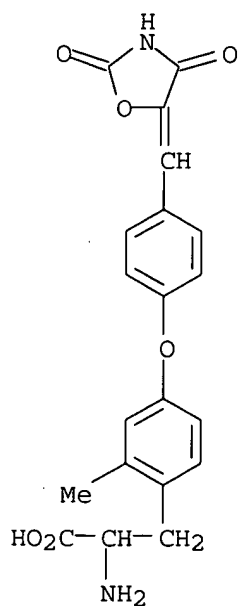
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2,3-difluoro-,  
methyl ester (9CI) (CA INDEX NAME)





RN 724761-26-6 HCAPLUS

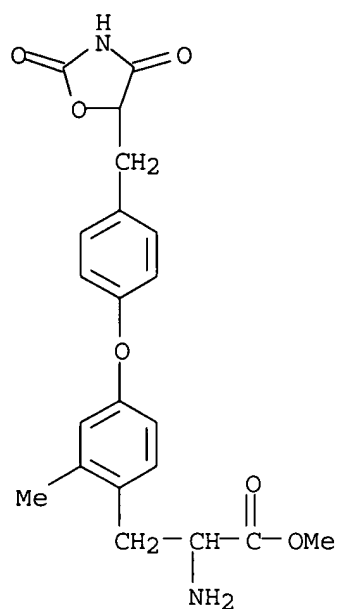
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-methyl-,  
(9CI) (CA INDEX NAME)



RN 724761-27-7 HCAPLUS

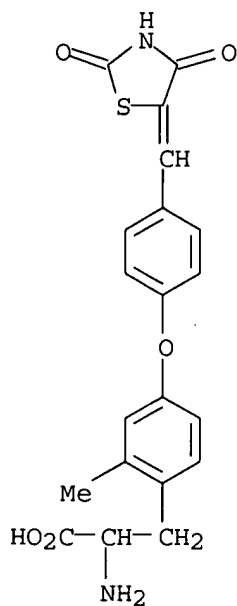
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-methyl-,  
methyl ester (9CI) (CA INDEX NAME)





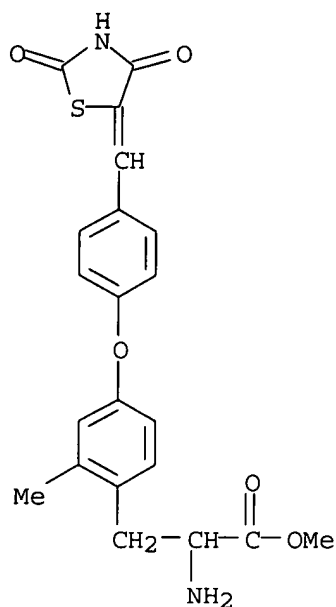
RN 724761-30-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-methyl-,  
(9CI) (CA INDEX NAME)



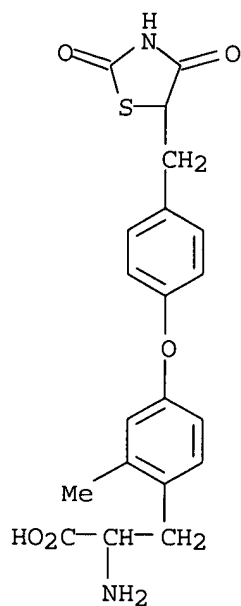
RN 724761-31-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-methyl-,  
methyl ester (9CI) (CA INDEX NAME)



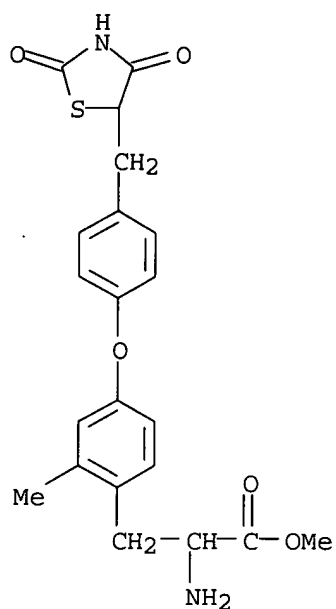
RN 724761-32-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-methyl- (9CI)  
(CA INDEX NAME)



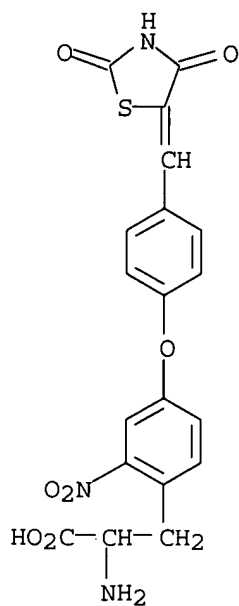
RN 724761-33-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-methyl-,  
methyl ester (9CI) (CA INDEX NAME)



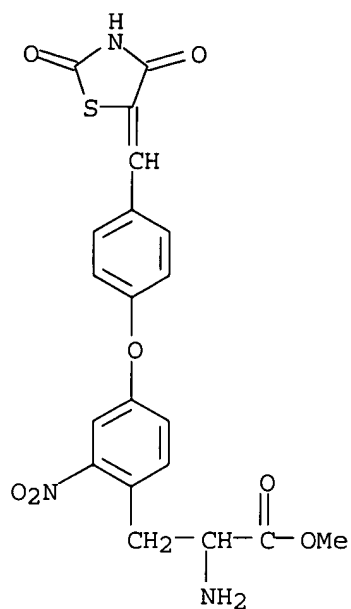
RN 724761-34-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-nitro-  
(9CI) (CA INDEX NAME)



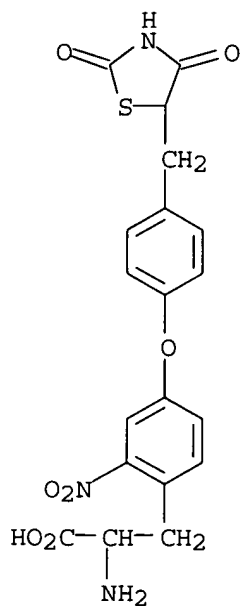
RN 724761-35-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-nitro-,  
methyl ester (9CI) (CA INDEX NAME)



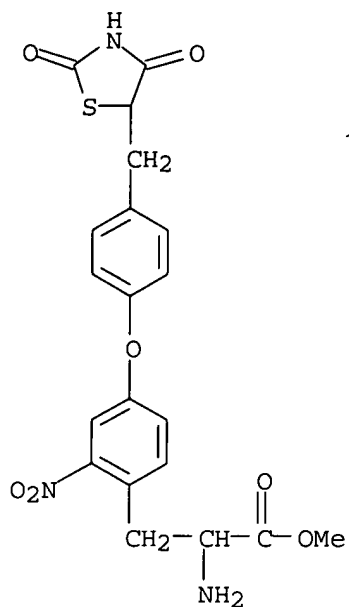
RN 724761-36-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-nitro- (9CI)  
(CA INDEX NAME)



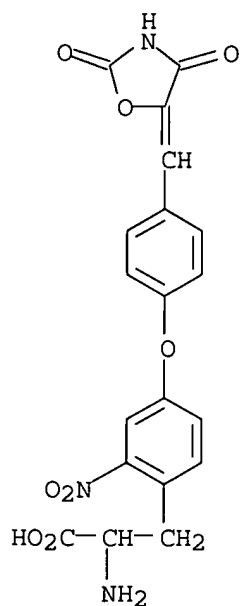
RN 724761-37-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-nitro-, methyl  
ester (9CI) (CA INDEX NAME)



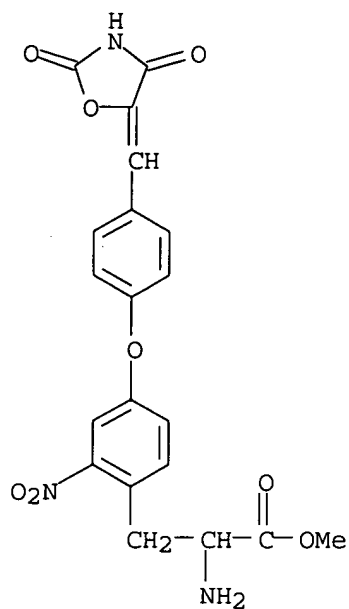
RN 724761-38-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-nitro-  
(9CI) (CA INDEX NAME)



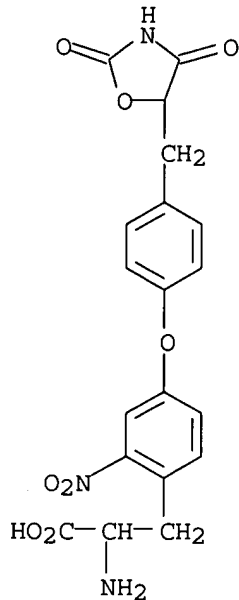
RN 724761-39-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-nitro-,  
methyl ester (9CI) (CA INDEX NAME)



RN 724761-40-4 HCAPLUS

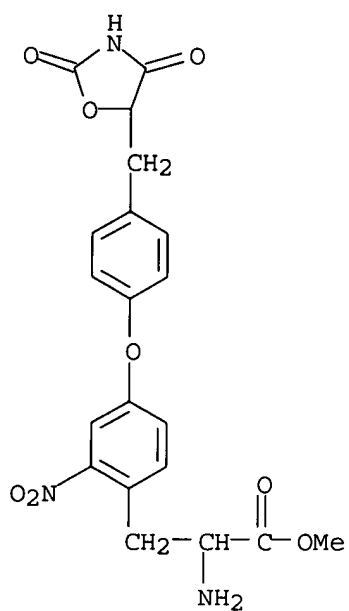
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2-nitro- (9CI)  
(CA INDEX NAME)



RN 724761-41-5 HCAPLUS

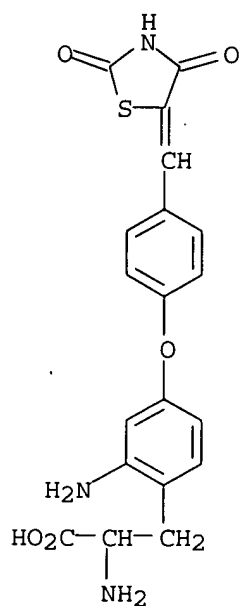
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2-nitro-, methyl  
ester (9CI) (CA INDEX NAME)





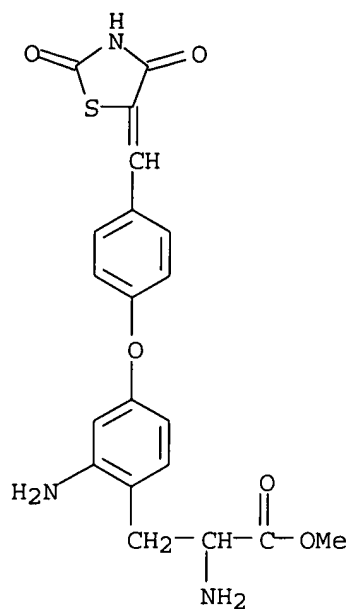
RN 724761-42-6 HCAPLUS

CN Tyrosine, 2-amino-O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-  
(9CI) (CA INDEX NAME)



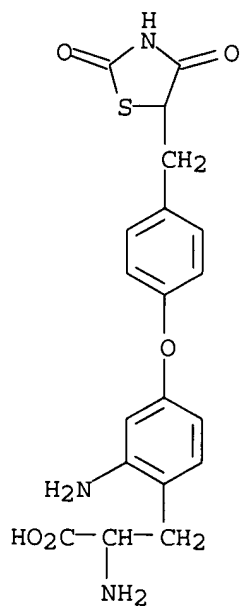
RN 724761-43-7 HCAPLUS

CN Tyrosine, 2-amino-O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-,  
methyl ester (9CI) (CA INDEX NAME)



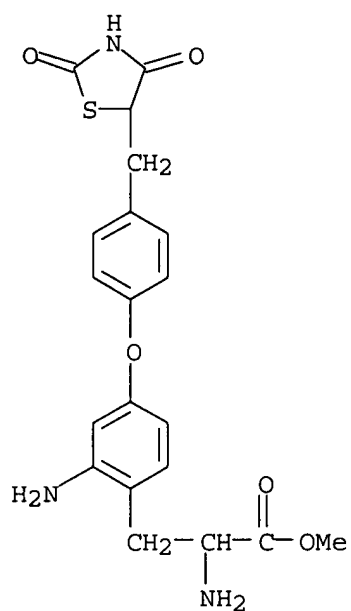
RN 724761-44-8 HCAPLUS

CN Tyrosine, 2-amino-O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]- (9CI)  
(CA INDEX NAME)



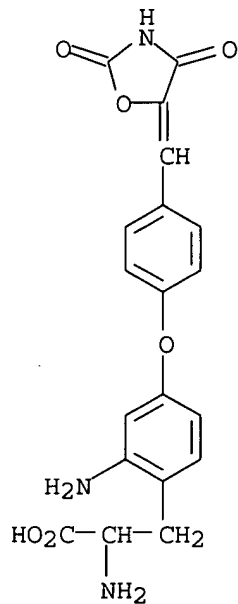
RN 724761-45-9 HCAPLUS

CN Tyrosine, 2-amino-O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-, methyl  
ester (9CI) (CA INDEX NAME)



RN 724761-46-0 HCAPLUS

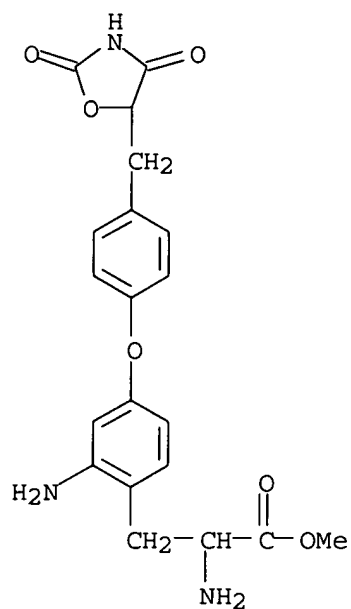
CN Tyrosine, 2-amino-O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-  
(9CI) (CA INDEX NAME)



RN 724761-47-1 HCAPLUS

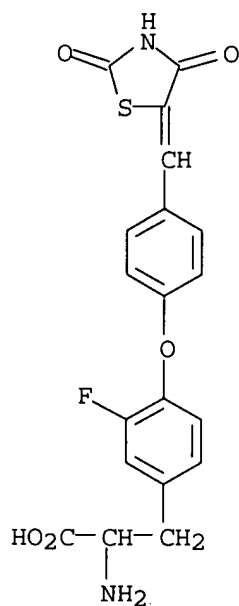
CN Tyrosine, 2-amino-O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-,  
methyl ester (9CI) (CA INDEX NAME)





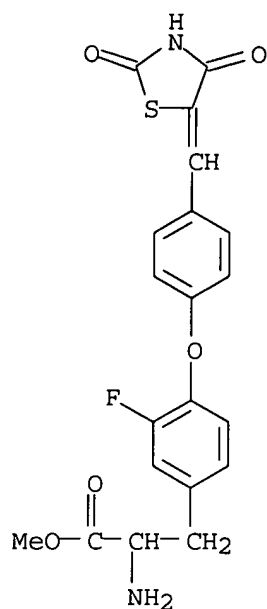
RN 724761-50-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-3-amino-,  
(9CI) (CA INDEX NAME)



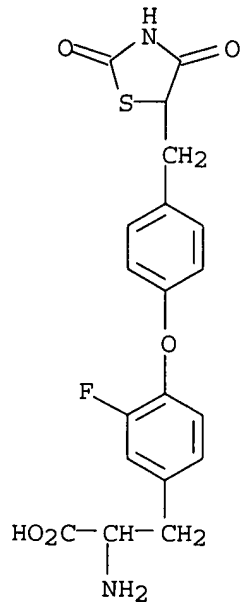
RN 724761-51-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-3-fluoro-,  
methyl ester (9CI) (CA INDEX NAME)



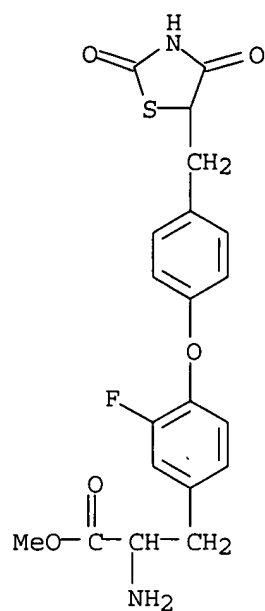
RN 724761-52-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-3-fluoro- (9CI)  
(CA INDEX NAME)



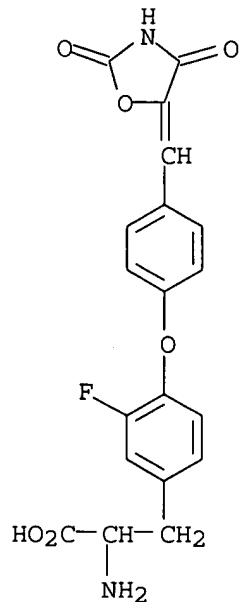
RN 724761-53-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-3-fluoro-,  
methyl ester (9CI) (CA INDEX NAME)



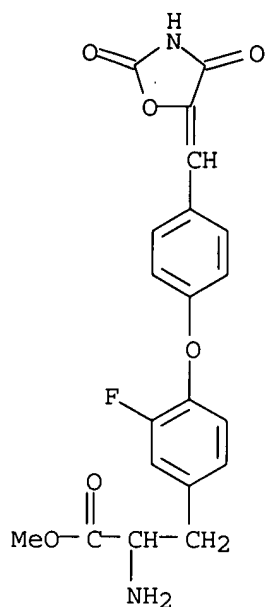
RN 724761-54-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-3-fluoro-  
(9CI) (CA INDEX NAME)



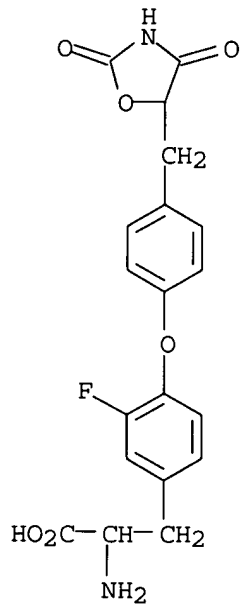
RN 724761-55-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-3-fluoro-,  
methyl ester (9CI) (CA INDEX NAME)



RN 724761-56-2 HCAPLUS

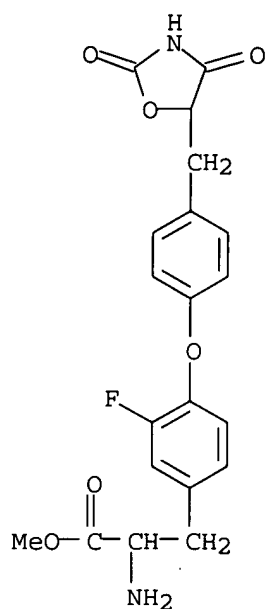
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-3-fluoro- (9CI)  
(CA INDEX NAME)



RN 724761-57-3 HCAPLUS

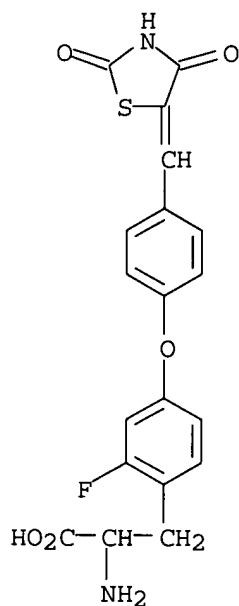
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-3-fluoro-, methyl  
ester (9CI) (CA INDEX NAME)





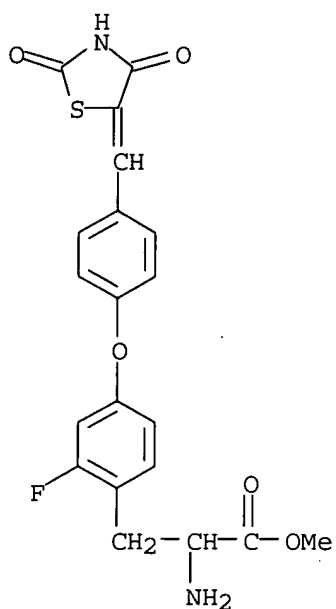
RN 724761-58-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-fluoro-  
(9CI) (CA INDEX NAME)



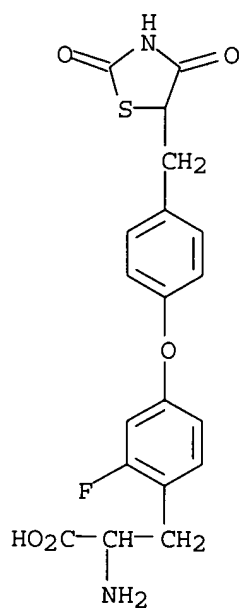
RN 724761-59-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-fluoro-,  
methyl ester (9CI) (CA INDEX NAME)



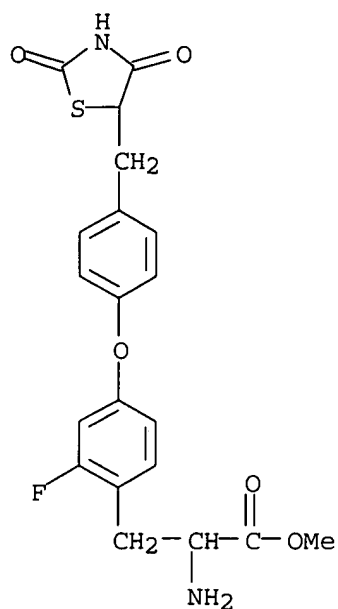
RN 724761-60-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-fluoro- (9CI)  
(CA INDEX NAME)



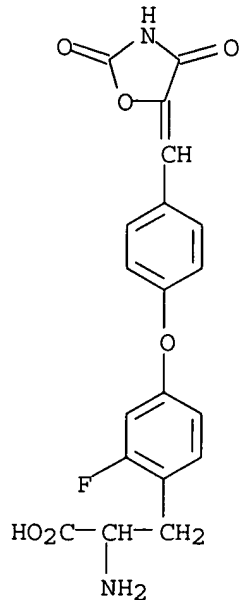
RN 724761-61-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-fluoro-,  
methyl ester (9CI) (CA INDEX NAME)



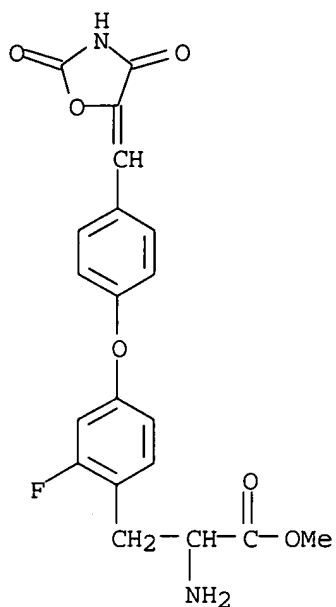
RN 724761-63-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-fluoro-  
(9CI) (CA INDEX NAME)



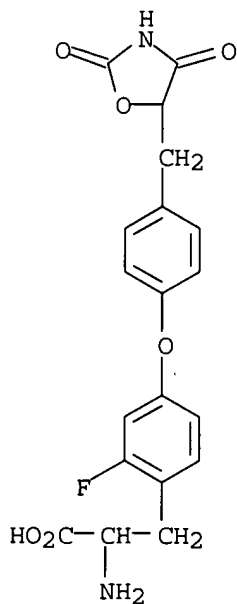
RN 724761-64-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-fluoro-,  
methyl ester (9CI) (CA INDEX NAME)



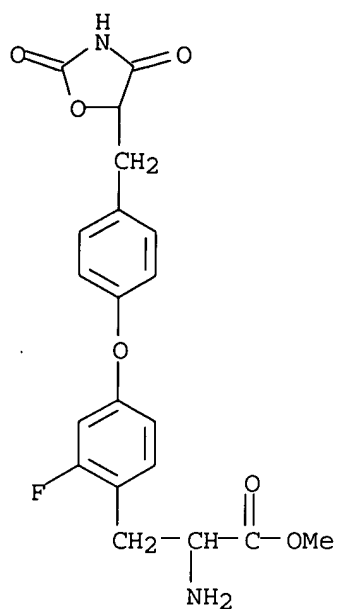
RN 724761-65-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2-fluoro- (9CI)  
(CA INDEX NAME)



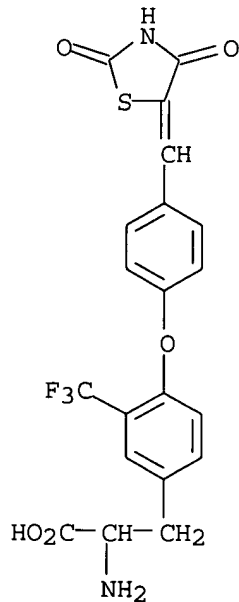
RN 724761-66-4 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2-fluoro-, methyl  
ester (9CI) (CA INDEX NAME)



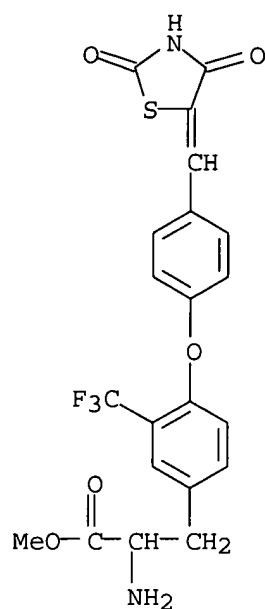
RN 724761-67-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



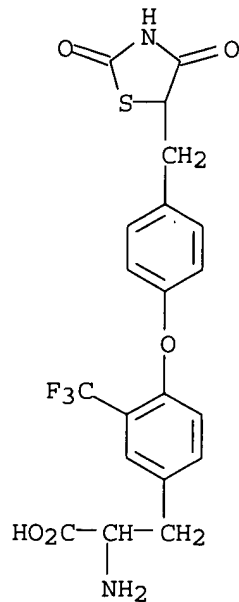
RN 724761-68-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-3-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



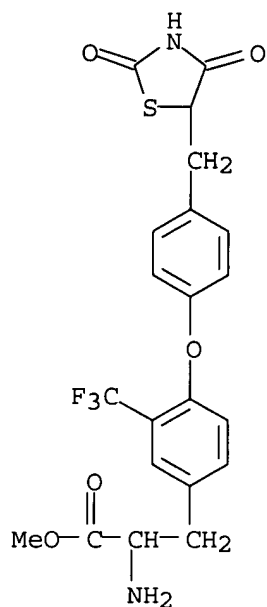
RN 724761-69-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



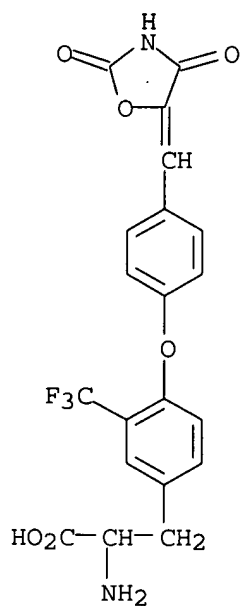
RN 724761-70-0 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-3-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



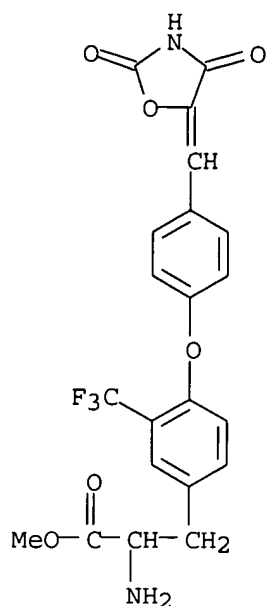
RN 724761-71-1 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



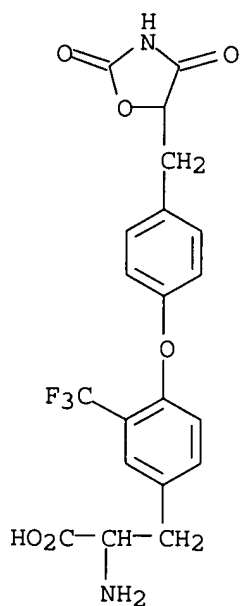
RN 724761-72-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-3-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 724761-73-3 HCAPLUS

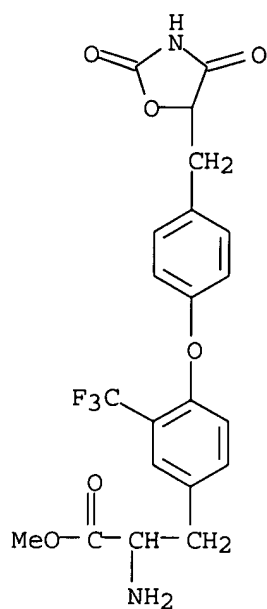
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 724761-74-4 HCAPLUS

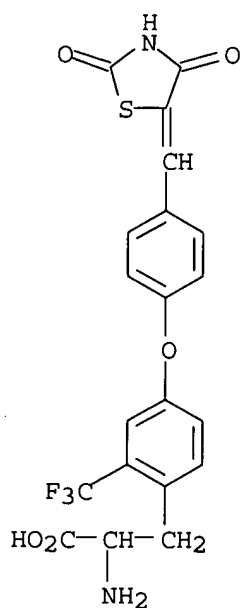
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-3-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)





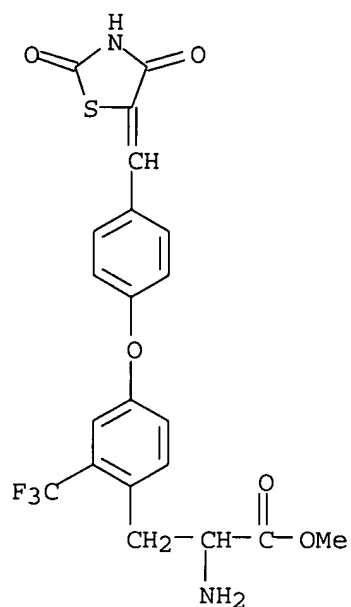
RN 724761-75-5 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



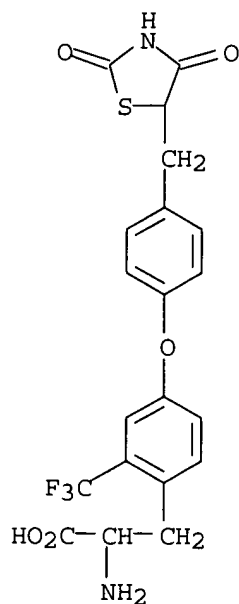
RN 724761-76-6 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]-2-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



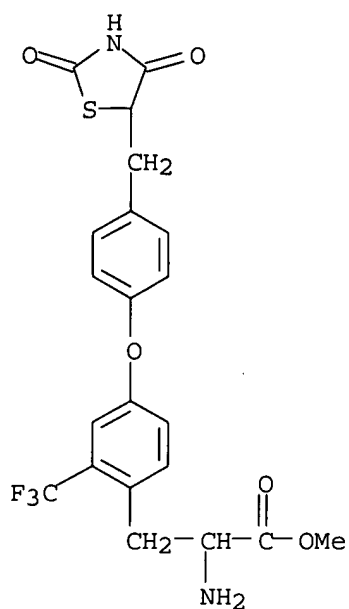
RN 724761-77-7 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



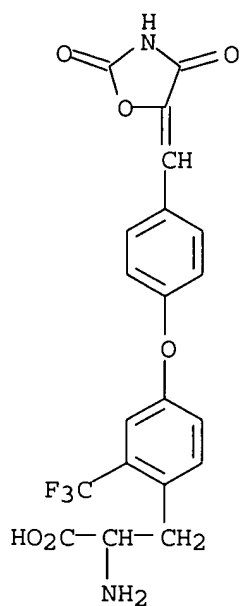
RN 724761-78-8 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-2-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



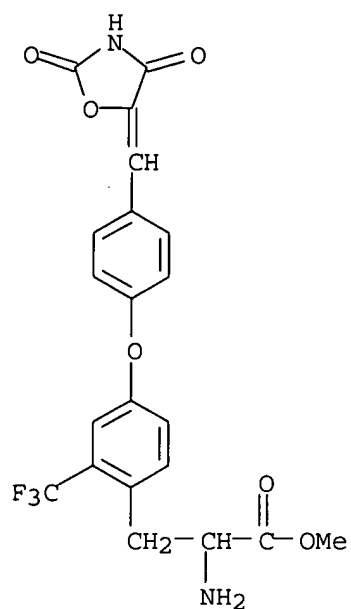
RN 724761-79-9 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



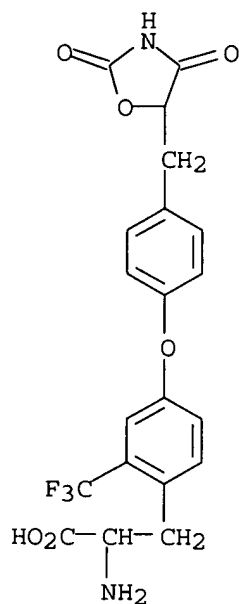
RN 724761-80-2 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-2-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



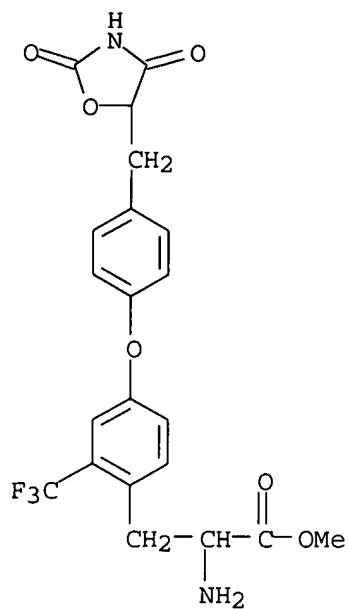
RN 724761-81-3 HCAPLUS

CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 724761-82-4 HCAPLUS

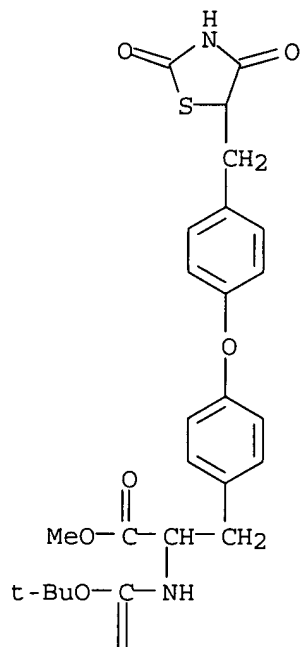
CN Tyrosine, O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-2-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 724761-83-5 HCAPLUS

CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

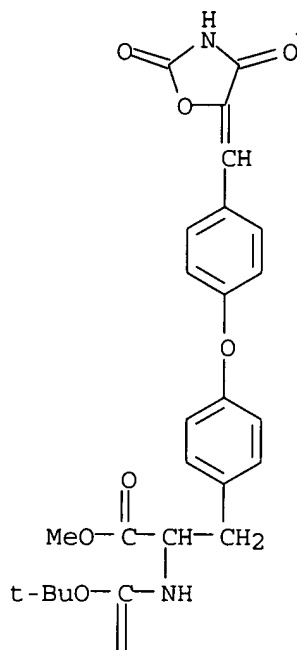


PAGE 2-A



RN 724761-84-6 HCAPLUS  
CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

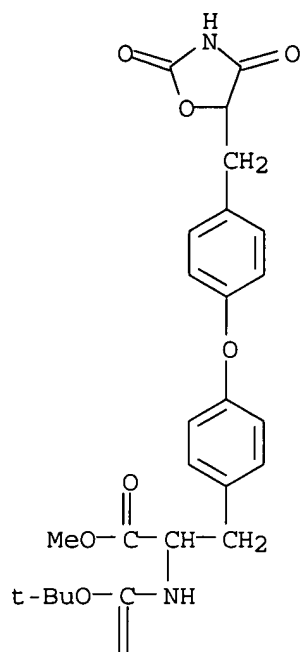


PAGE 2-A



RN 724761-85-7 HCAPLUS  
CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[4-[(2,4-dioxo-5-oxazolidinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

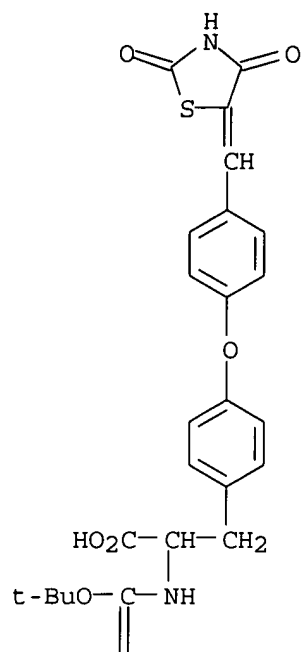


PAGE 2-A



RN 724761-86-8 HCAPLUS  
 CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[4-[(2,4-dioxo-5-thiazolidinylidene)methyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



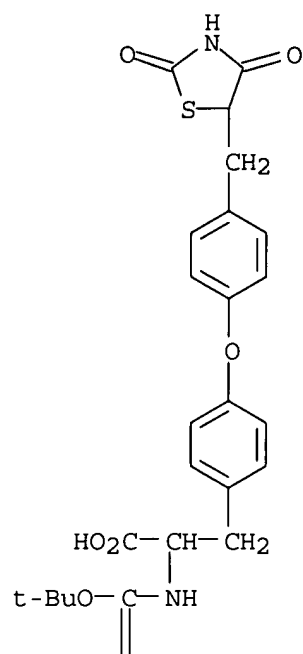
PAGE 2-A



RN 724761-87-9 HCAPLUS  
 CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenyl]- (9CI) (CA INDEX NAME)



PAGE 1-A

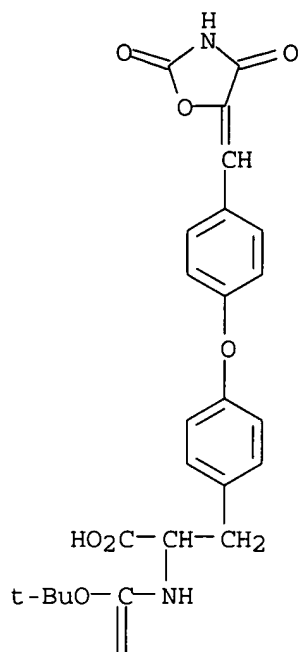


PAGE 2-A



RN 724761-88-0 HCAPLUS  
CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[4-[(2,4-dioxo-5-oxazolidinylidene)methyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

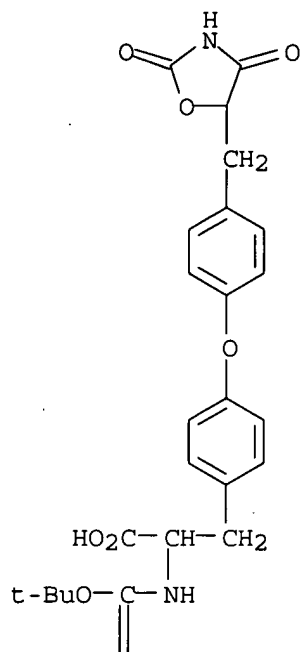


PAGE 2-A



RN 724761-89-1 HCAPLUS  
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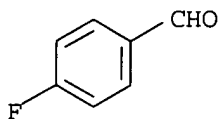
PAGE 1-A



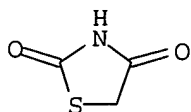
PAGE 2-A



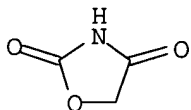
IT 459-57-4, 4-Fluorobenzaldehyde 2295-31-0,  
 2,4-Thiazolidinedione 2346-26-1, 2,4-Oxazolidinedione  
 188576-13-8, Methyl 2-[(tert-butoxycarbonyl)amino]-3-(4-  
 hydroxyphenyl)propanoate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reactant; preparation of tyrosine thiazolidinylmethylphenyl ether derivs.  
 for treatment of immunol. diseases, inflammation, obesity,  
 hyperlipidemia, hypertension, neurol. diseases, and diabetes)  
 RN 459-57-4 HCAPLUS  
 CN Benzaldehyde, 4-fluoro- (9CI) (CA INDEX NAME)



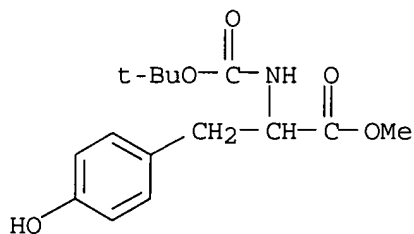
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 CN 2,4-Thiazolidinedione (8CI, 9CI) (CA INDEX NAME)



RN 2346-26-1 HCAPLUS  
CN 2,4-Oxazolidinedione (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 188576-13-8 HCAPLUS  
CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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